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NORMAL TRAINING

—IN THE—

HIGH SCHOOLS

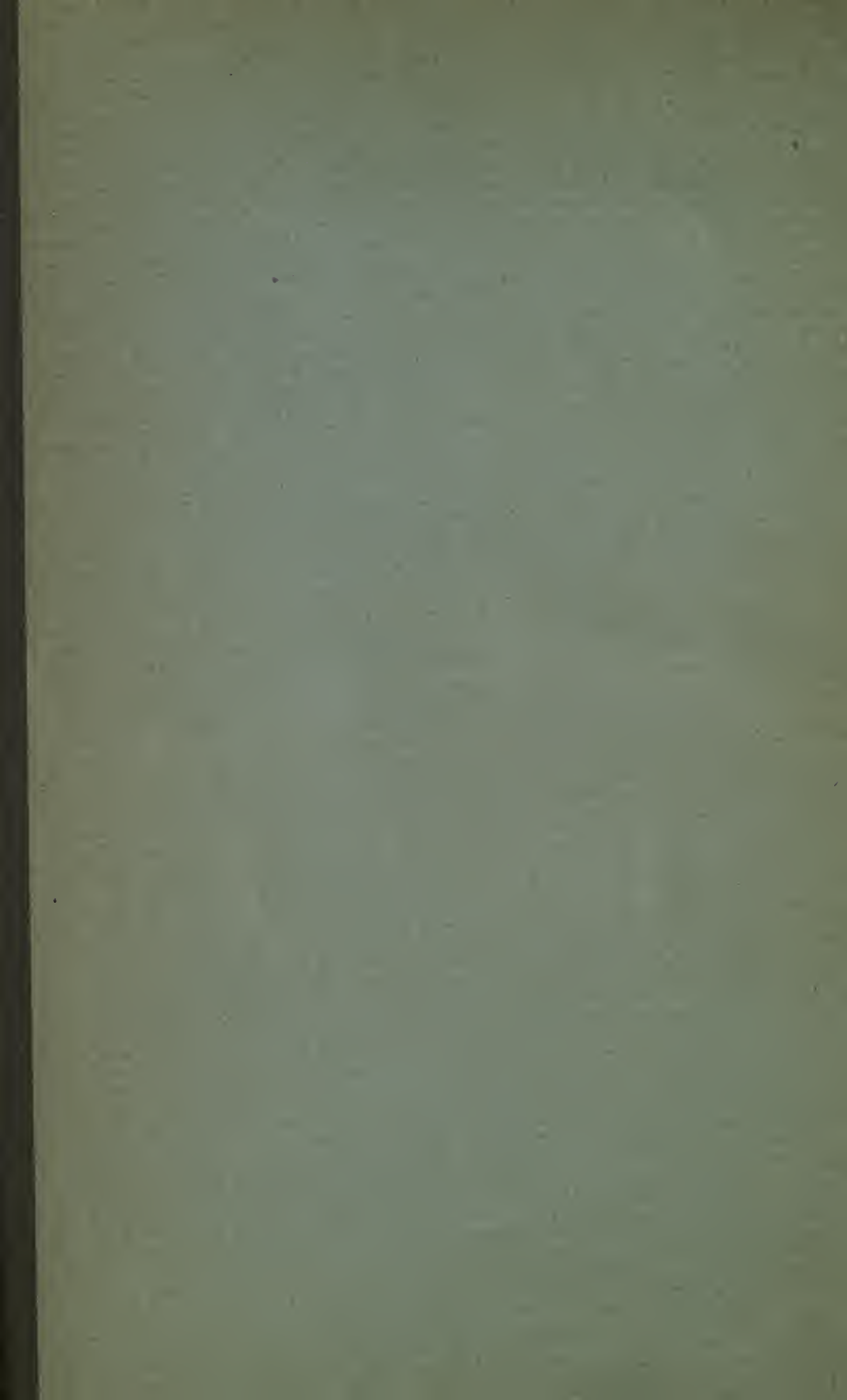
OF

NEBRASKA



DEPARTMENT OF PUBLIC INSTRUCTION
LINCOLN

December 3, 1907







NORMAL TRAINING CLASS, GENEVA HIGH SCHOOL, 1907

NORMAL TRAINING
IN THE
HIGH SCHOOLS
OF
NEBRASKA



DEPARTMENT OF PUBLIC INSTRUCTION
LINCOLN

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NORMAL TRAINING IN HIGH SCHOOLS

If there were any who ever doubted the demand for normal training in the high schools of Nebraska, that doubt must be dispelled in the face of the number of schools that have qualified for this work and the number of students in these schools who have registered for the work. On September 7, 1907, *one hundred six of the strongest high in the state, at least one in each representative district, were notified to schools in the state, at least one in each representative district, were notified to make a showing of their equipment and ability to do this work. On September 14 a second notification was sent, in which it was stated: "If you wish your school to be considered for this work, see to it that the application blank from your board of education and all other necessary blanks are filled out and returned to this department not later than October 1, 1907.

*The following is the list of 106 schools to whom our letters of September 6 and 14 were mailed: Ainsworth, Alliance Albion, Alma, Arapahoe, Ashland, Atkinson, Auburn, Aurora, Bancroft, Beatrice, Beaver City, Blair, Bloomfield, Bloomington, Blue Hill, Broken Bow, Burwell, Cambridge, Cedar Rapids, Central City, Chadron, Columbus, Crawford, Creighton, Crete, Culbertson, Curtis, David City, Emerson, Fairbury, Fairfield, Fairmont, Falls City, Franklin, Fremont, Friend, Fullerton, Geneva, Gothenburg, Grand Island, Hartington, Harvard, Hastings, Havelock, Hebron, Holdrege, Humboldt, Imperial, Kearney, Lexington, Lincoln, Loup City, McCook, Madison, Minden, Nebraska City, Neligh, Nelson, Norfolk, North Platte, Oakland, O'Connor, Ogalalla, Omaha, O'Neill, Ord, Osceola, Papillion, Pawnee City, Pender, Pierce, Plain View, Plattsmouth, Ponca, Randolph, Ravenna, Red Cloud, Rushville, St. Paul, Schuyler, Scottsbluff, Scribner, Seward, Shelton, Sidney, South Omaha, Spencer, Stanton, Stratton, Stromsburg, Superior, Sutton, Syracuse, Tecumseh, Trenton, University Place, Valentine, Wahoo, Wayne, Weeping Water, West Point, Wilber, Wisner, Wymore, York.

I have recognized sixty-four high schools as equipped and qualified to do normal training work for the school year 1907-8. It will be found that normal training classes in high schools will vary in number the same as the regular graduating classes do from year to year. In all probability it will be possible for some schools to qualify next year that could not qualify this year, and likewise some schools that have qualified this year will not be able to qualify next year. Recognition will be given for but one year at a time.

It was undoubtedly the intent of the legislature when it appropriated \$50,000 for the promotion of this work in the strongest high schools of Nebraska that none but those who actually desire to fit themselves to teach in the public schools of this state upon their graduation from high school should be permitted to take this work. Therefore the following obligation was required of all desiring admission to normal training classes in Nebraska high schools:

"We, the undersigned, hereby declare that our object in asking admission to the normal training class in _____ high school is to prepare ourselves for teaching, and it is our purpose to engage in teaching in the public schools of Nebraska at the completion of such preparation. We pledge ourselves to remain in the class the required time unless prevented by illness or excused by the state superintendent of public instruction."

In the sixty-four high schools recognized 1,103 juniors and seniors have subscribed to the required declaration. This is a showing far beyond the most sanguine expectations of the most enthusiastic friends of this movement. It is more than the combined enrollment at this time in the two state normal schools.

In our notification to the one hundred six high schools, we endeavored to impress upon them that qualifications on paper would not answer. It was emphatically stated that the work must be actually done by competent instructors in every school.

Two agencies of supervision will be employed—examination and inspection. The examinations will be conducted under the same rules and regulations governing the issuance of teachers' certificates under the certification law. The same care will be exercised in the preparation of questions and grading of answer papers by the state examining board for county certificates. These examinations will serve as a final test of proficiency on the part of those pursuing the instruction as well as those giving it. They are therefore an important means of instruction and supervision. It will be the aim to make the questions for these examinations suggestive and directive—teaching questions as well as test questions.

At least once every term each class in normal training will be visited by a representative of this department, who will submit a written report of each class visited, covering the following points: Membership, average age and appearance of members, credentials of admission, room and

QUALIFICATIONS FOR ADMISSION.

equipment, names and qualifications of instructors, character of instruction both subject matter and professional, and observation work. After the reports of the examiners and inspectors are all in, a circular letter based on these reports will be issued to the superintendents, principals and normal training class instructors, containing general criticisms and suggestions; also a table of results, showing subject by subject the total number of papers submitted, the total number of papers accepted, the total number ninety per cent or above, the number below 60 per cent, and the percentage of accepted papers or passing grades earned.

In accordance with section 29, subdivision 13, school laws of Nebraska for 1907, I have appointed Superintendent Isaac A. Downey of Hastings as Inspector of Normal Training Work in the high schools of Nebraska.

Mr. Downey obtained his education in the Christian College at Oskaloosa, Iowa. He has specialized in psychology and the history of education under Dr. W. A. Clark of the State Normal School at Kearney during the past two years. He holds a state professional certificate good for life in Nebraska. His experience covers all lines of school work. He has served as county superintendent of Adams county. He is secretary of the Nebraska State Teachers' Reading Circle Board. He was a member of the Committee on Legislation, representing the fifth congressional district, appointed by the last state teachers' association. He entered upon his new work October 15, 1907. His appointment meets with the hearty approval of the school men throughout the state.

Normal training in high schools is not a new question in the educational world. It was first inaugurated in the state of New York about seventy-five years ago. This was before the opening of the first state normal school in America at Lexington, Massachusetts, July 3, 1839. During the past twenty years New York state has appropriated \$100,000 annually for normal training in her strongest high schools, notwithstanding she has 300 colleges, universities, academies and seminaries, and sixteen full fledged state normal schools. Last year 2,921 prospective teachers received normal training in the high schools of New York. During the current biennium at least 2,000 prospective teachers will be given normal training in the high schools of Nebraska. I make bold to assert that this will do more toward giving us better qualified teachers for the rural schools than \$100,000 would do through any other channel.

In accordance with section 25, subdivision 13, school laws of Nebraska for 1907, I have designated the following high schools as being qualified and equipped to give normal training work for the year 1907-8:

SCHOOL	No. IN CLASS	SCHOOL	No. IN CLASS
Albion	11	Humboldt.....	11
Alliance.....	13	Lexington	34
Alma.....	10	Lincoln	24
Ashland	14	McCook	15
Auburn	13	Madison	12
Aurora.....	21	Minden.....	15
Beatrice	36	Nelson	12
Beaver City	13	North Platte.....	24
Blair.....	18	Oakland	17
Bloomington.....	14	Omaha ...	31
Blue Hill.....	10	O'Neill	17
Broken Bow.....	28	Ord	21
Cambridge	12	Pawnee City	20
Central City.....	12	Plainview.....	11
Columbus	12	Plattsmouth	17
Crete.....	25	Randolph	10
David City	22	Red Cloud	14
Fairbury.....	12	St. Paul.....	14
Fairfield	12	Schuyler	16
Fairmont	17	Seward	11
Falls City.....	10	Shelton.....	12
Franklin.....	17	South Omaha	19
Fremont	16	Spencer	10
Friend.....	18	Stromsburg.....	11
Fullerton	13	Superior ...	15
Geneva.....	29	Syracuse.....	10
Gothenburg	20	Tecumseh	10
Grand Island.....	22	Wahoo	34
Harvard.....	10	West Point.....	12
Hastings.....	21	Wisner.....	15
Hebron	17	Wymore	12
Holdrege	44	York.....	35

Total, 64 schools.....1103

December 3, 1907.

J. L. McBRIEN,
Superintendent.

TEXT OF LAW.

[Approved April 10, 1907.]

SUBDIVISION 13, SCHOOL LAWS

Section 24.—Purpose.—For the purpose of giving teachers an opportunity to meet the requirements in normal training as provided in sections 5548g and 5548h, chapter 79, Compiled Statutes of Nebraska for 1905, provision is hereby made for such training in the high schools in Nebraska.

Sec. 25.—State superintendent designates high schools.—The state superintendent of public instruction shall designate the high schools in which such instruction shall be given, distributing them among the sixty-seven representative districts of the state, as nearly as well may be, having reference to the number of representatives in each, and to the location and character of the high schools selected.

Sec. 26.—Admission —Regulations—The state superintendent shall prescribe the conditions of admission to the normal training classes, the course of instruction, and the rules and regulations under which such instruction shall be given.

Sec. 27.—Requirements governing approval of high schools for normal training.—In approving a high school for normal training as contemplated in this act, the state superintendent shall be governed by the following general requirements:

1. A high school in order to be approved for normal training must be a school accredited to the University of Nebraska.

2. At least two teachers exclusive of the city superintendent shall give their entire time to instruction in high school branches.

3. Normal training as provided in this act shall be given in the eleventh and twelfth grades. Credit for such training shall be given upon the completion of the prescribed course in normal training and the regular high school course of study.

4. The course in normal training shall be elective, and shall consist of the three following lines of study:

*The apparent conflict between the words "to be given not earlier than the tenth grade", in (a) of 4, section 27, subdivision 13, school laws, and the words "Normal training as provided in this act shall be given in the eleventh and twelfth grades" in 3 of said section and subdivision was caused by a blunder on the part of the clerks in the enrolling and engrossing committees in the legislature which passed this act. But the language in (a) of 4 is not as positive and strong as the language in 3. Then section 26 of said subdivision 13 gives the state superintendent authority to prescribe the conditions of admission to the normal training class, the course of instruction, and the rules and regulations under which such instruction shall be given. This department will hold that normal training as provided in this act shall be given in the eleventh and twelfth grades.

(a) A review for at least nine weeks in each of the following subjects—reading, grammar, arithmetic, and geography—*to be given not earlier than the tenth grade. This work shall include subject matter, underlying principles and methods of teaching, and should enable the student to approach the subject from the standpoint of teacher as well as that of student. It shall be given by well-trained, experienced teachers.

(b) A study of American history for at least one semester in the eleventh or twelfth grade.

(c) At least seventy-two periods of professional training to include a study of methods, school management, observation, work, etc., etc., to be given in the senior year by the city superintendent of schools or by a member of the high school faculty recommended by him and approved by the state superintendent of public instruction.

5. Schools offering this course shall have a reference library of at least three volumes on each of the following fields of professional study—history of education, principles of education, methods and special training in industrial education, including agriculture.

6. In case elementary agriculture is not in the regular course of study it shall be required in the course in normal training.

7. Every high school approved for normal training shall instruct a class of not less than ten, and every scholar admitted to such class shall continue under instruction not less than eighteen weeks in order to be counted in such class.

Sec. 28.—Amount of state aid.—The sum of seven hundred (\$700.00) dollars for the biennium shall be paid from the appropriation provided herein to each school district in which a class of not less than ten is organized and instructed in accordance with the provisions of this act.

Sec. 29.—Expenses of inspection.—The appropriation provided by this act for instruction in high schools of scholars in the science and practice of common school teaching shall be deemed to include and shall include due inspection and supervision of such instruction by the state superintendent of public instruction, and the expenses of such inspection and supervision shall be paid out of said appropriation on vouchers certified by the state superintendent.

Sec. 30.—Payment—Secretary of board—Warrants.—The secretary of the board of education of each school district meeting the requirements for normal training as herein provided shall on or before the last Monday in June of each year make a report, under oath, to the state superintendent of public instruction showing how many scholars have met the minimum requirements for normal training as contemplated by this act. The state superintendent shall on or before the second Monday in July of each year apportion the money earned to each school that has fully complied with the requirements of this act. It shall be the duty of the state superintendent to certify the apportionment for the several school districts of the state to the state auditor,

who shall draw warrants on the state treasurer in favor of the secretary of the board of education of the various school districts for the sums so specified by the state superintendent of public instruction. It shall be the duty of the state treasurer to redeem each warrant drawn on him by the state auditor and to remit the same to the secretary of the board of education of the proper school district.

Sec. 31—**Appropriation.**—That there be and there hereby is appropriated out of any moneys in the state treasury not otherwise appropriated the sum of fifty thousand (\$50,000) dollars for the purpose of establishing and maintaining normal training in high schools for the biennium ending March 31, 1909.

THE SCHOOLS OF THE PEOPLE.

The high schools are the schools of the people and not preparatory for higher institutions. Let the high school course of study, where it is feasible, be differentiated so as to give our young people the greatest opportunity possible to fit themselves for the work they must do upon graduation from the high school before they can ever have the means to go to college or university.

It will be interesting right here to know what becomes of our high school graduates. Knowing this we may plan better the work the high school should do. After a careful study of this question from letters received from city superintendents of the sixty strongest high schools in Nebraska, we find that, for the three years preceding 1905, 600 of the graduates went immediately to college, 800 immediately entered business, including such work as farming, banking, clerking, housekeeping, and like occupations, 900 immediately took upon themselves the responsible business of teaching; and all this in spite of the fact that these sixty of our strongest high schools have been straining themselves almost to the breaking point for credits at college or university.

Let us so far as possible fit for college and university. Let us give the young men and the young women who must enter the business world immediately upon graduation from the high school the best preparation possible. Let us also train the still greater number of young men and young women, who will teach school immediately upon graduation, in the art and science of school management. By such training we do not mean normal school work, but such work as will best fit them for the special business of school teaching. We admit the meagerness of such training, but it will be infinitely better than no training at all.

The minimum standard on which an elementary state certificate may be granted by the state normal schools and schools recognized on the basis of the state normal schools is a **two year** high school education or its equivalent, plus twenty-four weeks' attendance in said normal school with creditable professional and academic work.

This certificate is granted on grades earned at such normal school. Normal training in Nebraska high schools as approved by the act of 1907 requires that such training shall be given in the **eleventh** and **twelfth** grades. Credit for such training shall be given upon the completion of the prescribed course in normal training and the regular high school course of study. But this must not be construed to mean that a certificate will be granted to any person completing the normal training course upon his or her graduation from such high school. Grades granted such graduates by any high school are not given any consideration whatsoever for a teacher's certificate. Before any graduate of a school recognized for normal training work will be entitled to receive a teacher's certificate he must pass the examination before the state board of examiners for county certificates. With this rigid requirement and the more than one year's additional scholarship above the minimum required at state and approved normal schools for an elementary state certificate, and with the professional training given in the high schools, it is evident that the standard of certification is being raised rather than lowered by the normal training work in Nebraska high schools.

Bear in mind what becomes of our high school graduates immediately upon finishing the high school course of study. Commissioner Harris is authority for the statement that less than ten per cent of those who enter college and the university finish the course. Then remember that a cardinal principle of American government is the greatest good to the greatest number. Is it not high time then, for us to give some consideration in our high school courses of study to the three-fourths of our high school graduates who have heretofore been sadly neglected? Let us put our courses of study in touch with the avenues open to young men and young women who graduate from our high schools. In this manner we can hold the boys and girls for graduation who would otherwise drop out before the senior year, and ultimately more would graduate from the high school and more enter the college, university and normal school than to hold to a course made dry and impractical with the dust of ages. The American high school should be the poor man's college. Let us make it so. Let us demand that the higher institutions re-arrange their credits and requirements more nearly along modern lines.

In this agitation over normal training in high schools, it has been the policy from the beginning to harmonize it as much as possible with the regular high school courses of study and to require few changes, if any. The following course of study recommended for free high schools is recommended here as the standard toward which changes should be made if any are necessary..

STANDARD COURSE OF STUDY FOR HIGH SCHOOLS.

GRADE NINE.

First Semester		Second Semester	
	Periods		Periods
Algebra	5	Algebra	5
English	5	English	5
Physical Geography	5	Ancient History	5
Latin or Bookkeeping	5	Latin or Civics	5

GRADE TEN*

First Semester		Second Semester	
	Periods		Periods
Plain Geometry	5	Plane Geometry	5
Medieval History	5	Modern History	5
Botany 3 English 2	5	English 2 Botany 3	5
Caesar or English	5	Caesar or Agriculture	5

GRADE ELEVEN**

First Semester		Second Semester	
	Periods		Periods
		Solid Geometry or Reviews of	
Algebra	5	Reading and Geography	5
Cicero or German	5	Cicero or German	5
Physics	5	Physics	5
English History	5	Literature	5

GRADE TWELVE

First Semester		Second Semester	
	Periods		Periods
Vergil or German	5	Vergil or German	5
Chemistry 2 English 3	5	Chemistry 3 English 2	5
American History and Civics	5	American History and Civics	5
Reviews of Grammar and			
Arithmetic	5	Elective	5

In making changes it should be noted that American history, if properly taught in the normal training course, will receive credit at the University of Nebraska—one credit for one semester and two credits for two semesters; and likewise one credit for agriculture and one credit for professional training when given with proper equipment and instruction. Also one credit will be given for thorough work in English grammar if carried one semester. It must be remembered

*Ten grade schools may use English course first year and have Latin the second year.

**Eleven grade schools take American History instead of English History.

that the question of university credits in these subjects must be taken up directly and at an early date with High School Inspector A. A. Reed, Lincoln, Nebraska.

If it becomes necessary to make changes in the course of study in order that the high school may give the greatest good to the greatest number, it will be no unpardonable sin to sacrifice a few credits at the university. Professor Frank McMurray of Teachers' College, Columbia University, would omit much of algebra as well as Latin in the high school in order to give more time to studies more practical. Such is the position taken by President Felmy of Illinois State Normal University, in his address on The Modern High School Curriculum before the department of normal schools of the National Educational Association, Asbury Park, July, 1905.

The subjects required for the normal training course, in addition to the regular high school course of study, are agriculture (if not in the regular high school course of study, arithmetic, geography, grammar, American history, reading, and professional training. All these subjects, except agriculture and professional training should be in every high school course of study. The benefit to pupils of a thorough review of these so-called common branches during their high school course cannot be too strongly emphasized, regardless of whether pupils are fitting themselves for teaching, for the university, or for business. The movement for normal training in high schools, therefore, should be given a hearty welcome for forcing these subjects into the junior and senior years of our strongest high schools on account of their practical value aside from the professional end in view. We believe the time is near at hand when the university will give credit for any subject well taught and thoroughly mastered in the high school course of study.

It may not be necessary to form a special class in every subject required for the normal training work. For example, the normal training class may study American history with the regular class in that subject if the instruction meets the requirements as laid down in the normal training course outlined herein under the act of 1905. The same is true of the review subjects. Neither is it necessary to have one instructor do all the normal training work. In fact, it would be better to assign each subject to the high school instructor who is best prepared to teach it. This is the plan followed in Beatrice, Omaha, York, Superior, Hastings, and other schools that have been carrying normal training work under the 1905 law. It must be observed that the work in professional training is to be given by the city superintendent of schools or by a member of the high school faculty recommended by him and approved by the state superintendent of public instruction.

NORMAL TRAINING IN OMAHA AND BEATRICE.

Reported by Principal A. H. Waterhouse and Superintendent C. A. Fulmer, January, 1907.

Prin. A. H. Waterhouse of the Omaha schools writes: "There are about forty-five girls taking the work. They have taken for the first term and will continue to take for the remainder of the year American history and civics. During the larger part of the first term they took arithmetic, and for the remainder of the term they have taken grammar, which subject they will finish in the first six weeks of the second term. The subject will be followed for about thirteen weeks with a study of geography. This work will be in charge of Miss McDonald, who for years was one of the best eighth grade teachers in the city, and who has proven herself to be a strong, painstaking high school teacher. Reading will be in charge of two teachers. The drill in reading, or the academic part, will be in charge of Miss Peterson, a graduate of the Chicago University and a student under Professor Clark. Methods in primary reading will be given by Miss Clara B. Cooper, director of the training class, under the direction of the superintendent. Agriculture will be in charge of Miss Stringer, head of the biology department and one of the three best teachers of botany in the country, according to Dr. Bergen, the text book author. She has recently specialized in this subject. She will also have charge of the review in physiology. I shall have charge of the theory and art of teaching, and the work will consist of lectures and quizzes, together with observation work in the grades of the city, with reports on the visits.

A resume:

1. Arithmetic 13 weeks, J. F. Woolery, instructor.
2. English grammar 12 weeks, J. F. Woolery, Miss McDonald, instructors.
3. Geography 14 weeks, Miss McDonald, instructor.
4. American history 38 weeks, Mrs. Atkinson, Mr. Bracelen, Miss Davies, instructors.
5. Reading 19 weeks, Miss Peterson, Miss Cooper, instructors.
6. Agriculture 19 weeks, Miss Stringer, instructor.
7. Physiology 19 weeks, Miss Stringer, instructor.
8. Theory and art 22 weeks, A. H. Waterhouse, instructor.

I am quite enthusiastic over this matter now, and feel that the various subjects are in charge of people who will so make them their burden as to work out as good courses as prospective teachers can get anywhere in the same time."

Supt. C. A. Fulmer writes relative to this work in Beatrice: "At the beginning of this school year we established a normal training course in our high school under the direction of Miss Emma Wilhelmson. Miss Wilhelmson is a graduate of the University of Nebraska and has had experience as follows: two years principal of the Broken Bow, Nebraska, high school, and two years as superintendent of the Broken Bow public schools. She is assisted by Principal Garrett, a graduate of the U. of N., and who has had five years experience as high

school instructor, and Miss Maria P. Upson, also a graduate of the U. of N., and who has had experience as county superintendent of schools, and large and successful experience as high school instructor. Superintendent Fulmer a graduate of the Nebraska Wesleyan University, teaches pedagogy.

"The course is elective under certain conditions. None but juniors and seniors who are at least sixteen years of age and who expect to teach school are eligible. None but seniors are permitted to take pedagogy.

"The following subjects are taught for a full semester, five recitations a week: Reading, physiology, grammar, arithmetic, geography, pedagogy, agriculture, history.

"The work is a deeper and broader study of the subjects than is given in the lower grades, as well as a review, and methods of teaching receive much attention. The classes visit the city schools frequently and observe methods of teaching and school management. These students do some substitute teaching.

"At this time 26 junior girls, 2 senior boys, and 15 senior girls, a total of 43, are enrolled in these classes. We are well pleased with the result so far."



NORMAL TRAINING CLASS, OMAHA HIGH SCHOOL, 1907





NORMAL TRAINING CLASS, GRAND ISLAND HIGH SCHOOL, 1907

History of the Scheme in Nebraska.

This scheme was first recommended by State Superintendent W. K. Fowler in his Seventeenth Biennial report, from which we take the following extracts:

"I would recommend the organization of training classes in colleges, normal schools, and such academies and high schools as are able to meet the requirements for such a class. These training classes should be under the unrestricted supervision of the state superintendent of public instruction. On or before the first of July of each year, application for appointment to instruct training classes should be presented to the state superintendent by the trustees of the institution desiring such appointment on blank forms provided for the purpose. No high school should be recognized as meeting the requirements for a training class except those organized under subdivision 14 or 17 of the school laws of Nebraska. These applications should set forth the various facts or information regarding the school, giving the number of teachers employed, the enrollment in the different departments, opportunities afforded for observation and practice work, the names, qualifications and salaries of instructors, etc. Before being forwarded the application should be approved by the county superintendent of the county in which such school is located. The idea of permanency is an important factor to be considered in the approval of such schools, for it is essential to retain, as far as possible, the same institutions year after year and make them educational centers for this work. Certain specific requirements should be prescribed in the regulations issued by the state superintendent as a requisite for approving these institutions, among which are the following: the institution must furnish as an instructor (or instructors) a college graduate or a normal school graduate with three years' experience in teaching since graduation, or the holder of a professional state certificate with three years' experience in teaching; all instructors of such classes must be approved by the state superintendent; a minimum salary of \$500 must be paid instructors; the school must provide opportunity for the members of the class to observe methods of teaching in in the several grades of common school work and to teach in such grades under proper supervision; it must conduct prescribed recitations in the subjects belonging to the training class course separate from all other recitations; and it must maintain a legal class, that is, a class of not less than ten nor more than twenty-five members for each instructor for at least thirty-six weeks in the year.

"Candidates for admission to the training class should possess as a minimum qualification a certificate of graduation from the eighth grade. They should be at least sixteen years of age at the time of entrance. They should also subscribe in good faith to the following declaration: 'We, the undersigned, hereby declare that our object in asking admission to the training class is to prepare ourselves for teaching, and it is our purpose to engage in teaching in the rural schools of Nebraska at the close of such preparation. We pledge ourselves to remain in the class during the year unless prevented by illness or excused by the state superintendent of public instruction.'

"The special mission of the training class is to provide the rural schools, that are not in position to engage normal graduates, with teachers who are proficient in the common branches and have devoted at least a year to special preparation—largely in professional work. The province of the normal school and the province of the training class are, therefore, clear and distinct. The two are supplementary agencies and are not to be regarded in any sense as rivals. I am of the opinion that many training class graduates after teaching a few years will be enabled to complete a course of study in a normal school, a step impracticable before they gain a foothold from the training class. The normal school proper cannot supply the demand for teachers in the country districts. Moreover, the graduate from the advanced normal course is, as a rule, beyond their reach, owing to the financial condition of a large majority of the rural school districts. The training class is the only means of providing trained teachers for the country schools."

NORMAL TRAINING REQUIRED.

The Law relative to normal training as a requisite for securing a first or second grade county certificate is very brief, somewhat indefinite, yet comprehensive. It was enacted by the legislature of 1905. It reads:

On and after September 1, 1907 no person shall be granted a first grade county certificate who has not had at least twelve weeks' normal training in a college, university, or normal school of approved standing in this or in another state, or in a state junior normal school of Nebraska, or in a high school of Nebraska approved by the state superintendent of public instruction as being equipped to give such normal training. One or more years' successful experience as a teacher may be considered the equivalent of the normal training required by this section.—Sec. 7, Subd. 9a, S. L., 1905.

On and after September 1, 1907, no person shall be granted a second grade county certificate who has not had at least eight weeks, normal training in a college, university or normal school of approved standing in this or in another state, or in a state junior normal school of Nebraska or in a high school of Nebraska approved by the state superintendent of public instruction as being equipped to give such normal

training. One or more years' successful experience as a teacher may be considered the equivalent of the normal training required by this section.—Sec. 8, Subd. 9a, S. L., 1905.

INAUGURATION OF PLAN.

While the statute empowers the state superintendent to prescribe all requirements for high schools qualifying for normal training, we hesitated to inaugurate a law of such magnitude without the help of the school men and women most deeply interested in the results to be obtained by a proper application and enforcement of it. Therefore at the Association of Superintendents and Principals of Graded Schools at its session in October, 1905, we requested that a committee be appointed consisting of the president of that association, one member at large, one member from each congressional district, the presidents of the state normal schools, and the head of the department of education of the University of Nebraska, with instructions to consider the subject of normal training in the high schools of Nebraska in accordance with the law, and to report to the State Teacher's Association. The following committee was appointed, with the state superintendent as ex-officio member:

Supt. E. L. Rouse, Plattsmouth, chairman; Supt. A. A. Reed, Superior, secretary; Supt. W. H. Pillsbury, Falls City; Prin. N. M. Graham, South Omaha; Supt. E. B. Sherman, Columbus; Supt. James E. Delzell, Lexington; Supt. W. W. Stoner, York; Prof. G. W. A. Luckey, University of Nebraska; Pres. J. W. Crabtree, Peru State Normal; Pres. A. O. Thomas, Kearney State Normal; J. L. McBrien, State Superintendent, Lincoln.

The committee held three meetings, counseled with as many principals and superintendents of graded schools as possible, and called to its assistance the heads of departments of education in colleges, universities and approved normal schools of Nebraska. At the meeting of the State Teachers' Association in December, 1905, the committee made the following report, which was unanimously adopted:

On October 3, 1907, the following institutions had been recognized under the law of 1905 as qualified and equiped to give normal training work on the basis of high schools during the school year 1907-8: Gates Academy, Neligh; Hastings College Normal Department; St. Paul Normal and Business College; Spalding Academy. Other private schools may be recognized from time to time under the act of 1905. The normal training work given by these schools will be subject to the same inspection and supervision as made of high schools. Said schools could not be recognized under the 1907 law and entitled to share in the appropriation of \$50,000, on account of the prohibition in section 11, Article 8 of the Constitution of Nebraska, relative to the granting of public funds to a private or sectarian institution.

GENERAL REQUIREMENTS.

1. A high school in order to be approved for normal training must be a school accredited to the University of Nebraska, with a four years' course of study.

2. At least three teachers exclusive of the city superintendent shall give their entire time to instruction in high school branches.

3. High school graduates only shall receive credit for high school normal training.

4. The course in normal training shall be elective, and shall consist of the three following lines of study:

(a) A review for at least nine weeks in each of the following subjects—reading, grammar, arithmetic, and geography—to be given not earlier than the eleventh grade. This work should include subject matter, underlying principles and methods of teaching, and should enable the student to approach the subject from the standpoint of teacher as well as that of student. It should be given by well-trained, experienced teachers.

(b) A study of American history for at least one semester in the eleventh or twelfth grade.

(c) At least seventy-two periods of professional training, to include a study of methods, school management, observation work, etc., etc., to be given in the twelfth grade by the city superintendent of schools or by a member of the high school faculty recommended by him and approved by the state superintendent of public instruction.

5. Schools offering this course shall have a reference library of at least three volumes on each of the following fields of professional study—history of education, principles of education, methods, and special training in industrial education, including agriculture.

6. In case elementary agriculture is not in the regular course of study it shall be required in the course in normal training.

OUTLINE OF WORK BY SPECIAL COMMITTEES.

Acting under the authority vested in me by the statute to carry out the details of this law, special committees were appointed to prepare complete outlines on the plan and scope of the work in reading, arithmetic, grammar, geography, history, agriculture, and professional training. We give herewith the outlines adopted:

READING.

The subjects that should be included in a normal training course in reading fall naturally into two divisions—those possessing culture value, and those possessing value as methods. An outline should be arranged under these two heads, though it must be understood that the subjects under the head of culture must be taught in such a way as to teach method also.

A—Culture Subjects.**I. Mechanics of reading.****1. Time.**

- a. Definition.
- b. Function.
- c. Causes of rapid time.
- d. Causes of slow time.
- e. Examples of different time.
- f. Methods of teaching.

2. Grouping.

- a. Purpose.
- b. Relation to time.
- c. What determines grouping.
- d. Influence of punctuation.
- e. Grouping in different grades.
- f. Practice in marking groups.
- g. Methods of teaching.

3. Melody.

- a. Definition.
- b. Function.
- c. Relation to emphasis.
- d. Main idea.
- e. New idea.
- f. Related ideas.
- g. Motive apart from emphasis.
- h. Definition and function of key.
- i. Different keys.
 - High, low, medium.
- j. Definition and function of inflection.
- k. Different inflections.
 - Falling, rising, circumflex.
- l. Methods of teaching.

4. Force.

- a. How reading differs from declaiming.
- b. Function of force.
 - c. Definition and functions of stress.
- d. Different kinds of stress.
 - Radical, final, median.
- e. Methods of teaching.

5. Quality.

- a. Function.
- b. The different qualities.
 - Bright, dark, normal, guttural, aspirate, orotund.
- c. How to secure correct quality.
- d. Atmosphere.
- e. Methods of teaching.

II. Interpretative reading.

1. Types and figures of speech.
 - a. Function and definition of types.
 - b. Definition and discrimination of figures.

Metaphor, simile, allegory, metonymy, synecdoche, personification, apostrophe.
 - c. Exercises for practice.
 - d. Methods of teaching.
2. Effects.
 - a. Function and definition.
 - b. Classification.

Incident, character, mood, kind, degree.
 - c. Exercises for practice.
 - d. Methods of teaching.

III. Literature. (This part of the work should be the last taken in the course, and is to be adapted to the time and the needs of the class. It can be extended indefinitely.)

1. American authors: birthplace, education, occupation, characteristics, and most important works.

A. Colonial period (1607-1765).

John Eliot, Cotton Mather, JONATHAN EDWARDS.

B. Revolutionary period. (1765-1789).

a. Prose: BENJAMIN FRANKLIN, THOMAS JEFFERSON, James Madison, Alexander Hamilton, John Adams.

b. Poets: John Trumbull, Francis Hopkinson.

c. Orators: Patrick Henry, Josiah Quincy.

C. Period of the Republic. (1789-1906).

i. National beginnings. (1789-1815).

a. Poets: Francis Scott Key, Joseph Hopkinson.

b. Biographers: John Marshall, William Wirt.

c. Essayists: Thomas Paine, Noah Webster.

d. Orators: Fisher Ames, John Randolph.

ii. Golden age. (1815-1870).

a. Poets: WILLIAM CULLEN BRYANT, Joseph Rodman Drake, Fitz-Greene Halleck, EDGAR ALLEN POE, JOHN GREENLEAF WHITTIER, HENRY WADSWORTH LONGFELLOW, Alice and Phoebe Cary.

b. Historians: William H. Prescott, George Bancroft, John Lothrop Motley.

c. Essayists: WASHINGTON IRVING, RALPH WALDO EMERSON, JAMES RUSSELL LOWELL, OLIVER WENDELL HOLMES.

d. Humorists: Charles F. Browne, ("Artemus Ward") David R. Locke.

e. Orators: DANIEL WEBSTER, Edward Everett, Henry Ward Beecher, Wendell Phillips.

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- f. Novelists: JAMES FENIMORE COOPER, NATHANIEL HAWTHORNE, Harriet Beecher Stowe.
 - iii. Present age. (1870-1906).
 - a. Poets: Thomas Bailey Aldrich, Sidney Lanier, Celia Thaxter, Walt Whitman, EUGENE FIELD, James Whitcomb Riley.
 - b. Historians: John Bach McMaster, John Fiske, Theodore Roosevelt, Edward Eggleston.
 - c. Essayists: John Burroughs, Edward Everett Hale, George William Curtis, Charles Dudley Warner, Hamilton Wright Mabie.
 - d. Humorists: Samuel L. Clemens ("Mark Twain"), Robert J. Burdette.
 - e. Orators: James G. Blaine, William Jennings Bryan.
 - f. Biographers: John Hay, Ulysses S. Grant, Julian Hawthorne.
 - g. Novelists: William D. Howells, Henry James, Frank R. Stockton, Mary E. Wilkins, Lewis Wallace, Helen Hunt Jackson, Francis Bret Harte, George W. Cable. Thomas Nelson Page, James Lane Allen.
 - 2. Selections for reading (with a view to expression and ability to explain the thought).
 - a. Didactic and moral.
 - Elegy Written in Country Churchyard—Gray.
 - The Chambered Nautilus—Holmes.
 - b. Oratorical.
 - The Gettysburg Address—Lincoln.
 - Liberty and Union—Webster.
 - c. Dramatic.
 - Lochinvar—Scott.
 - Barbara Frietchie—Whittier.
 - Paul Revere's Ride—Longfellow.
 - d. Narrative and descriptive.
 - The Lady of Shalott—Tennyson.
 - How They Brought the Good News From Ghent to Aix—Browning.
 - The Gray Champion—Hawthorne.
 - e. Humorous.
 - A Curtain Lecture—Jerrold.
 - Whitewashing the Fence—Clemens.
 - IV. Pronunciation and articulation.
 - 1. Pronunciation.
 - a. Use of the dictionary.
 - Table of contents.
 - Symbols.
 - Rules.
 - How to find words.
 - b. Diacritical marks.

2. Articulation.

- a. Importance.
- b. Methods of instruction.
- c. Exercises.

Labials.

Dentals.

Palatals.

Nasals.

Liquids.

Aspirate.

Hard combinations.

Long Words.

B.—Method Subjects.

1. Primary Reading.

1. Features of various methods.

- a. Alphabet.
- b. Phonic.
- c. Word.
- d. Sentence.

2. The correct principles.

- a. The most convenient unit for teaching.
- b. Use of sentences as early as possible.
- c. Immediate connection between words and things.
- d. Early phonic work.
- e. Using the child's love of action.

3. Methods of teaching words and sentences.

- a. The child's vocabulary.
- b. The desire to read.
- c. Teaching the first words.
- d. What the first word shall be.
- e. Using the words in sentences.
- f. Change from script to print.

4. Methods of teaching phonics.

- a. At first separate from reading.
- b. What sounds shall be taught.
- c. How sounds shall be taught.
- d. Analysis of words into sounds.
- e. Sound symbols, or phonograms.

5. Outlining a course.

6. Dramatizing.

- a. Advantages.
- b. Methods of work.

II. Intermediate and advanced methods.

1. Classification of material.

- a. Material of average difficulty.
- b. Material of highest literary quality.
- c. Material of value for information only.

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- d. Material too difficult for oral reading.
 - e. Material for sight reading.
 - 2. Parts of the recitation.
 - a. Drill in articulation.
 - b. Recitation proper.
 - Reading.
 - Questioning.
 - Interpreting.
 - c. Assigning the next lesson.
 - Selection.
 - Length.
 - New words and ideas.
 - Work for pupils to do.
 - d. Supplementary reading.
 - Purpose and value.
 - Quality.
 - Difficulty.
 - Methods of handling.
 - 3. Getting good expression.
 - a. Importance of getting the thought.
 - b. Importance of feeling the emotions.
 - c. Importance of getting the right mental attitude.
 - d. Use of questions.
 - e. Use of substitutions.
 - f. Use of child's experience.
 - g. Use of child's imagination.
 - h. Value of good models.
 - i. Necessity of careful assignment.
 - j. Necessity of right material.
 - k. Obstacles.
 - The "reading tone."
 - The book.
 - Difficulty with words.
 - Difficulty with thought relations.
 - Wrong mental attitude.
 - Influence of other lessons.
 - E. B. SHERMAN, Columbus,
 - A. A. REED, Superior,
 - ALICE HOWELL, University of Nebraska,

Committee.

ARITHMETIC.

As the teacher takes up this work let her bear in mind these things: First, a teacher can teach only that which she thoroughly understands, and as she is sending from her classroom those who shall without further study attempt to teach this subject, let her see to it that they have a clear view of every topic taken up. In the second place, keep constantly in mind as she prepares her work and as she presents

it, that no matter what fine spun theories she may present, the method her pupils will use will be the methods she exemplifies before them. They will teach as she teaches and not as their grade teacher did, for when they were with the grade teacher they were not old enough to notice method. Let some such plan of a recitation as follows be consistently used.

1. **Assigning** next day's lesson, indicating difficult points, with suggestions as to how to prepare.
2. **Reciting** to-day's lesson, consisting of—
 - (a) Testing individual preparation in various ways.
 - (b) Correcting false and clearing up doubtful impressions.
 - (c) Drilling on essential points by whole class.

The work of the class should be along two lines: Academic work which must constitute the major part, and Methods and Devices. The committee do not think it best to separate this work in detail, but yet the teacher must so plan her work. For convenience we shall here set forth what we think should be done in each, but do not recommend that it can be so done in the classroom.

ACADEMIC WORK.

In the academic work one recitation each week should be given strictly to Mental Arithmetic. Select some good text and furnish each child with one. Assign definite lessons and expect the same preparation as you do for written work. One of the reasons that mental arithmetic has fallen into disrepute is because we as teachers have made what little work we did offer desultory and fragmentary. In addition to this regular period use five or ten minutes of each recitation for easy oral problems, bearing directly upon the topic under consideration and introducing the topic for the next recitation. Since it will be impossible to cover all classes of work in the nine weeks given to the subject, we recommend that the following be offered:

1. Rapid combination drills in integers, fractions and denominate numbers.
2. Problems dealing with ordinary business transactions such as small bills; involving fractional parts of one dollar; discounts and interest.
3. Measurements.
4. Ratio, with special reference to its application in solution of problems.

ANALYSIS.—The present generation of pupils has had no training along this line and to this phase of the work the teacher must give special emphasis. The state superintendent declares that the papers now coming to his office prove clearly that teachers themselves have no real conception of mental arithmetic. They are forced to solve simple problems algebraically. This must not be countenanced in mental arithmetic. It would seem to us that it would be well to carry this work almost daily by assigning one or two problems just for

analysis. Have many handed to the teacher in writing that she may see that each pupil has a clear form of analysis of the ordinary problems that should be solved without the aid of pencil and paper.

If no text is at hand for this work, we recommend Dr. Brook's "New Mental Arithmetic," published by Christopher Sower Co., Philadelphia. Make a careful study of his preface and all suggestions to teachers.

In the written work we think the following topics should be covered first, then if time permits, others may be added:

1. Notation and numeration. Merely a rapid glance at the two methods of notation, the principles underlying each and the advantages of the Arabic over the Roman. There should be some drill in numeration of Roman Notation. Do not allow the class to leave your hands until they habitually read the ordinary Arabic correctly. One-half of the teachers in the schools to-day do not know that the "and" should be used only in reading MIXED numbers.

2. A short review of the fundamental operations. The emphasis here should be placed upon checking. Give problems that arise by use of the technical terms applicable to these operations. More will be said of this topic under Methods and Devices.

3. The three special forms of Division—

- (a) Fractions, Common and Decimal.
- (b) Percentage and the most important of its applications.
- (c) Ratio and Proportion.

As suggested by the arrangement above, these subjects are really only different forms of division and should be treated as very closely related. They should be divested of the mystery that is usually thrown around them. Common sense methods should be used in teaching them. Percentage should be taught as a case in fractions. The subjects should be carried along together and thus prepare the would-be teacher to so present them to her classes.

4. Measurements.

- (a) Review of common tables.
- (b) Actual use of the ruler; yard stick; measures, both dry and liquid; and scales, wherever possible.
- (c) Much work in areas and capacities—too much work cannot be offered here. Plastering, carpeting, and problems requiring number of bushels, gallons, etc., are invariably stumbling blocks.

5. Square Root and its applications.

METHODS AND DEVICES

It is meant that this work shall be done in connection with the regular class work. Of necessity some time must be given wholly to this phase of the subject.

1. Teaching the fundamental operations.

Pupils should leave this class with a clear distinction between counting and adding. That is to say, they should be given enough work in rapid addition and subtraction to learn the value of knowing combinations as soon as they see the figures. No better way can be suggested than to drill upon combinations of two figures; then three, four and five. Such columns should be added at sight **correctly**. When they find the value of such practice, that they will use it in their classes is unquestionable. Methods of presenting and drilling upon the multiplication "tables" should be given them. If not already using the "Austrian method" of arrangement in division they should be taught it at the start and not be allowed to use any other method in the class. By this method we refer to the placing of the quotient above the dividend and any digit in the quotient exactly above the last digit of the dividend used or "brought down". The value of checking subtraction by addition, and multiplication and division by each other, should be firmly fixed.

2. Visiting the grades to see some of the strong teachers present the most vital topics. This should be done under the direction of the superintendent of the schools, that only best methods be observed. There should be one hour spent in each of the lower grades. After these visits there should be a conference, in which the teacher, the superintendent, the class and their high school teacher, may discuss the recitation observed. This means that these conferences must be after hours' meetings, but we believe this will be gladly done by all concerned.

3. Each pupil in the class should have an opportunity to present to his classmates one or more topics. Assign this work several days in advance that the pupil-teacher may make careful preparation for his maiden effort. After his part of the work is done, the teacher and class should discuss the pupil-teacher's work.

4. There should be a careful study of the problem something as follows:

- (a) Reading the problem.
- (b) Solving by indicated processes only.
- (c) Checking by approximate computations.
- (d) "Blocking out" the problem.
- (e) Making of problems in each subject, for actual use in the recitations.

It has been suggested that we amplify this last somewhat. We mean by reading the problem that the primal difficulty in problem work is that the child does not read it. He glances at it and proceeds to do something with pencil and thinks that he is solving the problem. For preparation have a great many problems read carefully and the recitation consist of merely telling how to solve; "b" is only the written form of "a." On other days assign many problems and require the work to be merely indicated. Do the mechanical work in the classroom. The use of approximate results is scarcely ever used to

any advantage. When a child has read a problem let him mentally estimate by use of approximate numbers about what his answer should be. Then as he goes through the process of computation he will have something to tell him he has made some fatal blunder in his work. By merely misplacing a decimal point he may have an answer ten times too large. Suppose it is one of those in percentage, as: A house costs \$850.00. The yearly taxes are \$18.00, the water \$5.00, repairs \$13.00. It rents for \$8.00 per month. What per cent does the owner realize on his investment? The child reasons thus: He receives \$96.00, but pays out \$36.00; this leaves him \$60.00. Now if his house had cost him \$800.00 he would have exactly $7\frac{1}{2}$ per cent, but since it cost him more than \$800.00 his investment will pay him a little less than $7\frac{1}{2}$ per cent. By blocking out the problem is meant only the sketching of the condition to help visualize them. It will be the introduction to the use of the graph. We know of nothing that will help a pupil so much as to actually make his own type problems. We are satisfied that a mere trial of this will establish its use.

We suggest that every teacher to whom is assigned this very great responsibility secure three of four of the latest texts and go carefully over the prefaces, suggestions to teachers, and read the Manuals which accompany all good texts. As a help to the teacher we suggest the following as being good modern texts: Walsh's, Smith's, Durell and Robbins', Ferrel's, Young and Jackson's, Werner's (Hall's) and McNeill's Mental Arithmetic. We recommend also that she read three or four good books bearing directly upon this subject such as "Methods in Written Arithmetic," Cook; "Teaching of Elementary Mathematics," Smith; "Psychology of Numbers," Dewey and McClellan.

E. L. ROUSE, Plattsmouth

C. F. BECK, Peru State Normal.

A. L. CAVINESS, Fairbury,
Committee.

ENGLISH GRAMMAR.

TECHNICAL ENGLISH.

I. Brief sketch of the development of the English language.

II. The sentence.

A. Analysis into elements.

1. Classification of elements.

a. Primary elements.

1. Subject—bare, complete.

2. Predicate—bare, complete.

3. Complement—object, attribute, objective.

b. Secondary elements.

1. Adjective.

2. Adverbial.

3. Noun, or substantive.

4. Connective.

5. (Independent).
2. Composition of elements.
 - a. Words—derivatives, prefixes, suffixes.
 - b. Phrases—prepositional, infinitive, participial.
 - c. Clauses—dependent, independent.
- B. Classification of sentences.
 1. As to structure—
 - a. Simple.
 - b. Complex.
 - c. Compound.
 2. As to use—
 - a. Declarative.
 - b. Interrogative.
 - c. Imperative.
 - d. Exclamatory.
- C. A careful review of the use of capitals and marks of punctuation.
- D. Examples, analysis, verification—

The study of the sentence is fundamental. The teacher should select typical sentences for illustration. She should develop all definitions rapidly and simply as with younger classes. Pupils should be required to verify analysis and classification by accurate application of the definition. Drill work is essential.

The pupils should be required to bring to class appropriate illustrations of all definitions.

III. The parts of speech.

- A. General study.
 1. Origin of "parts of speech" —Definitions.
 2. Drill in recognizing parts of speech.
 3. Diagramming or graphic representation of the parts of speech.
- B. Detailed review.
 1. The Noun.
 - A. Classification.
 1. Proper.
 2. Common.
 - a. Class; b. Abstract; c. Collective; d. Verbal.
 - B. Modifications.
 1. Person.
 - a. First; b. Second; c. Third.
 2. Number—Singular, plural.
 - a. Rules for formation of plurals.
 - b. Application of same in accurate drills.
 3. Gender—Masculine, feminine, common,

neuter.

a. Definitions and drills.

4. Case—Nominative or subjective, objective, possessive.

a. Special drills in case construction.

b. Use some word as **doctor** in all possible constructions in each case.

c. Special drill exercises in possessives.

C. Syntax.

1. Rules and well selected illustrations.

D. Parsing.

1. The Noun.

2. Classification.

3. Person.

4. Number.

5. Gender.

6. Case.

7. Construction.

8. Rule of syntax.

2. The Pronoun.

A. Classification.

1. Personal—simple, reflexive.

a. Special drills in personal pronouns.

2. Demonstrative.

3. Interrogative.

4. Relative, or conjunctive—simple, compound, double.

a. Special study of relative pronouns and antecedents.

b. Drills in case constructions.

5. Indefinite—distributives, number and quantity, comparatives, reciprocals.

B. Modifications. (Same as nouns.)

C. Declension.

1. Personal pronouns.

2. Demonstrative pronouns.

3. Relative pronouns.

D. Syntax.

E. Parsing.

1. The pronoun.

2. Classification.

3. Antecedent.

4. Person.

5. Number.

6. Gender.

7. Case.

8. Constructon.
9. Rule of syntax.
3. The Adjective.
 - A. Classification.
 1. Descriptive—common, proper, participial.
 2. Definitive.
 - a. Pronominal—demonstrative, indefinite, interrogative, distributive, relative, possessive.
 - b. Numeral—cardinals, ordinals, fractionals, multiplicatives.
 - c. Article—definite, indefinite.
 - B. Comparison, ascending or descending.
 1. Positive degree.
 2. Comparative degree
 3. Superlative degree.

$\left. \begin{array}{l} \text{Give exercises in regular} \\ \text{and irregular comparisons.} \\ \text{Adjectives not compared.} \end{array} \right\}$
 - C. Syntax.
 1. Rules and illustrations.
 - D. Parsing.
 1. The Adjective.
 2. Classification.
 3. Degree.
 4. Comparison.
 5. Construction.
 6. Rule of syntax.
4. The Verb.
 - A. Classification.
 1. Finite verbs.
 - a. Form—regular, irregular, complete, defective, redundant.
 1. Drill on principal parts of irregular verbs.
 - b. Use—transitive, intransitive.
 1. Drill in distinguishing between these uses.
 2. Infinite verbs—infinitives, participles.
 - a. A careful study with drill exercises.
 - B. Modifications.
 1. Voice—active, passive.
 - a. Careful study of voice.
 - b. Drill in discriminating between active and passive.
 - c. Voice in relation to transitive and intransitive uses.
 2. Mode.
 - a. Finite modes—indicative, subjunctive,



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imperative, potential.

b. Infinite modes—(infinitive), (participial).

3. Tense—Present, past (imperfect), future, present perfect (perfect), past perfect (plu perfect), future perfect.

4. Person—First, second, third.

5. Number—Singular, plural.

C. Conjugation.

1. Regular verb.

2. Irregular verb.

a. Special study of shall and will, may and can, sit and set, lie and lay, etc

D. Syntax.

1. Rules and illustrations.

2. Drills in agreement of verb with various kinds of subjects.

E. Parsing.

1. The verb.

2. Class as to form.

3. Principal parts.

4. Class as to use.

5. (Voice).

6. Mode.

7. Tense.

8. Inflection of tense.

9. Person.

10. Number.

11. Construction.

12. Rule of syntax.

5. The adverb.

A. Classification.

1. As to use.

a. Simple.

b. Conjunctive.

2. As to meaning.

a. Time and succession.

b. Place and motion.

c. Manner.

d. Cause, purpose, reason.

e. Condition.

f. Measure and degree.

g. Doubt.

h. Affirmation and negation.

B. Comparison (See comparison of adjectives).

C. Syntax.

1. Rules and drill exercises.

D. Parsing.

1. The adverb.
2. Class as to use.
3. Class as to meaning.
4. Comparison.
5. Construction.
6. Rule of syntax.

6. The preposition.

A. Kinds.

1. Simple.
2. Complex (phrasal).
3. Compound—one word, two words.

B. Relationship.

1. Antecedent.
 - a. Verb.
 - b. Noun.
 - c. Adjective.
 - d. Adverb.
 - e. Infinitive.
 - f. Participle.
 - g. Phrase.
 - h. Clause.

C. Syntax.

1. Special points to notice.
2. Use of words with appropriate prepositions following.
3. Drills in choice of appropriate prepositions.

D. Parsing.

1. Preposition.
2. Relationship.
3. Rule of syntax.

7. The conjunction.

A. Classification.

1. As to use.
 - a. Co-ordinate.
 - b. Subordinate.
2. As to meaning.
 - a. Copulative.
 - b. Adversative.
 - c. Correlative.
 - d. Alternative.
 - e. Casual.
 - f. Conditional.
 - g. (Phrasal).

B. Syntax.

1. Rules and illustrations.
2. Special drills.
 - a. Conjunctive adverbs.
 - b. Distinguish between **that, but that, but what.**

C. Parsing.

1. The conjunction.
2. Class as to use.
3. Class as to meaning.
4. Syntax.
5. Construction.

8. Interjections.

A. Definition—Distinguish clearly from other parts of speech.

B. Kinds of feeling expressed.

1. Joy.
2. Sorrow.
3. Wonder.
4. Wish.
5. Praise.
6. Surprise.
7. Pain.
8. Contempt.
9. Aversion.
10. Expulsion.
11. Desire or call for attention.
12. Exultation.
13. Mirth.
14. Salutation.
15. Call for silence.
16. Dread.
17. Languor or weariness.
18. Desire for stop.
19. Parting thought feeling.
20. Feeling of discovery.
21. Question feeling. (This list may be changed or added to as the pupils understand the subject).

C. Drills in correct interpretations of interjections.

D. How words used as other parts of speech become interjections.

IV. Discussion of methods.

1. Development of definitions.
2. Drill work to fix same in mind.
3. Order of presentation of subjects.
4. Preparation of lesson plans.

5. Correction of mistakes—oral, written.

APPLIED ENGLISH.

I. Composition.

1. Right choice of words.
2. Clear expression of thought.
3. Margins and paragraphing.

II. Business and social forms.

1. Common business papers.
 - a. Correct spelling, punctuation and form.
2. Letters.
 - a. Correct form.
 - b. Proper folding.
 - c. Correct address.

J. W. SEARSON, Peru State Normal.
 MARGARET HALL, Lincoln High School,
 R. H. WATSON, Valentine,
 Committee.

OUTLINES ON ENGLISH

FOR THE GRADES AND FOR THE HIGH SCHOOL.

No better outlines on English were ever given to the public than those prepared by the special committees appointed by the Superintendents and Principals' Association in 1899. We give these reports here on account of their inestimable value. There has been a greater demand for these reports than for any other publication ever issued by this department. Every teacher and prospective teacher into whose hands these reports fall should not fail to master them.

REPORT OF COMMITTEE ON ENGLISH FOR THE GRADES

The following resolutions were adopted by the committee:

1. To report on the work of the first eight grades only.
2. To report upon the principles upon which a high school course should be based, leaving the working out of the plan to a future committee.

3. To make no attempt to outline all phases of English but to emphasize certain important ones, leaving others to be taken up later.

The purpose of the work in English should be (1) to secure freedom of expression, (2) to secure correctness of expression, (3) to enlarge the vocabulary, (4) to teach pupils to connect both oral and written expression with thought, and (5) to correlate Literature with technical English as a medium for culture.

These five purposes involve many things, each of which is, in itself, of the utmost importance. With the first, however, the primary teacher is most concerned. It is easy to say, "encourage the child to

express himself, "but to do this in the best sense is an altogether different matter. To obtain freedom of expression there must first be created a desire for expression, and herein lies the teacher's paramount responsibility. To select those topics of conversation which come within the understanding and environment of the pupils requires much tact.

Every lesson in the curriculum is, in a certain sense, a language lesson, and as such should be borne in mind by the teacher. Care must be taken not to interfere with the thought or make thought impossible by untimely correction or criticism. Those points which need correction should be made note of and later should be drilled upon until the use of the correct form becomes a fixed habit.

The exercises in the elements of literature should be both constructive and interpretative, and as far as possible constructive, or synthetic, work upon each should precede the analytic, or interpretative.

Your committee beg leave to submit the following outline:

First Grade.

I. Technical English.

Drill in forms, based (1) on common mistakes and (2) on less familiar forms that need to be known for correct expression.

- A. Capitals.—Beginning (1) sentences and (2) proper names; (3) the pronoun "I."
- B. Punctuation.—(1) Period, (2) interrogation point, and (3) other marks, as needed, given incidentally.
- C. Nouns.—(1) Possessive forms and (2) singular and plural forms of such nouns as children need to use.
- D. Pronouns.—Use (1) of personal pronouns and (2) of nominative case after forms of the verb to be.
- E. Verbs.—(1) Simple tense forms, (2) compound tense forms which children need to use, and (3) correction of errors in agreement of verb with its subject in number.
- F. Use of "a" and "an."

II. Constructive English.

- A. Description.—The simplest description is merely a process of identification and tells (1) who or what it is, (2) where it is, and (3) what it is doing, if animate. The higher form of description is a process of visualization and can be introduced gradually as the development and condition of the pupils warrant. Have descriptions (1) of a pupil acting before the class, (2) of two pupils acting before the class, (3) of pictures, (4) of seeds, leaves, animals, weather, etc.
- B. Narration.—(1) Of a simple action which has been performed before the class, (2) of experiences suggested by emotional words or phrases, and (3) of incidents which will be of interest to the class. In (2) have pupils tell as

nearly as possible, (a) when it was, (b) where it was, (c) what he was doing, and (d) why he remembers it.

- C. Reproduction.—Selections read to the children to have the thought reproduced. Allow no attempt at reproduction of the writer's language.
- D. Hints.—(Effects)—(1) Have pupils give and interpret hints. (2) Have pupils give hints for teacher or class to interpret. (This is important, for here the pupil may be taught to give sufficient effect for the cause he wants assigned. He must be held to give only logical conclusions, also to be charitable in his interpretations. Much of this work will be in the nature of character effects).

III. Interpretative English.

- A. Hints.—(Effects)—(1) Make pupils familiar with hints by giving great many for interpretation. (2) Have pupils select hints and give the interpretation. These may be taken from reading lessons, stories and incidents. Very little material can be found in the reading books of this grade, but some can be obtained by careful selection and modification. (3) Have pupils select hints for teacher or class to interpret. See note under D. 2 above.
- B. Emotional words and phrases.—(1) Selection of emotional words and phrases from lessons, poems and songs. Material may be found in the poems of such writers of child verse as Lucy Larcom and R. L. Stevenson, and in the short poems now published in all the better grade of first readers.

Suggestions.—(1) Language work of the first grade should be entirely oral during the first half of the year. A very little written work may be given near the close of the second half. (2) When a technical term is needed, give the correct one. Use no terms, however, until needed. They mean nothing to pupils if forced. (3) Use the word "sentence" from the beginning, when sentence is meant. Avoid the incorrect use of the word "story". (4) See that the pupils of all grades observe the laws of selection, completeness, method, symmetry, and unity, so far as applicable to their age and development. (5) The technical work of the first five grades is based upon the idioms of language, and requires the incidental presentation of many facts of form and construction. This is incidental to the pupil only, and requires careful, thoughtful planning and presentation by the teacher. It must be by no means accidental.

Second Grade.

I. Technical English.

- A. Capitals.—(1) Review work given for First Grade and (2) teach the use of capitals in titles and poetry.

- B. Punctuation.—(1) Review punctuation marks given in first grade. (2) Quotation marks, (3) the apostrophe to denote possession, and (4) the comma in such sentences as children use.
- C. Nouns.—(1) Possessive forms, both singular and plural. (2) Plural number formed regularly by adding "s" or "es" and such irregular plurals as children need to use. (3) Study spelling of such words.
- D. Pronouns.—Work as laid out for the First Grade reviewed and extended.
- E. Verbs (1) Review and extend work laid out for first grade. (2) Much practice in making the verb agree with its subject in number. (3) Teach the correct use as to meaning of such verbs as teach and learn, got and have, lie and lay, sit and set, etc.
- F. Adjectives.—(1) The correct use of such descriptive adjectives as the children use. (2) Comparative forms where needed.
- G. Sentence.—Teaching also subject and predicate.
- II. Constructive English.
- A. Description.—(1) Review and extend each point suggested for First Grade. (2) Visualization of persons.
- B. Narration.—Review and extend each point suggested for First Grade.
- C. Reproduction.—See that the pupil has the thought first, then expresses it in clear, concise language of his own. Reproduction from memory drill belongs elsewhere.
- D. Hints.—Review and extend work as suggested for First Grade.
- E. Types.—Animals, flowers, kinds of weather, seasons, etc., as types.
- III. Interpretative English.
- A. Hints—Work as planned for First Grade reviewed and extended. There is more material found in the late readers for this grade than for the preceding. Such stories as "Helping Hands" and "Androclus and the Lion" are valuable. Others can be adapted.
- B. Emotional words and phrases.—Extend work laid out for First Grade. Parts of "Hiawatha's Childhood," "Seven Times One," and similar poems can be used. Abundant material is to be found in all the late second readers.
- Suggestions.—Most of the composition work for this grade should be oral. That which is written should be carefully planned and watched by the teacher. See that the first written work is correctly done. Avoid the formation of bad habits by obtaining careful, thoughtful, and correct expression at the beginning.

Third Grade.

I. Technical English.

- A. Capitals.—Use of capitals as given for first and second grades and other uses as needed for all written work.

- B. Punctuation.—(1) Review marks given for preceding grades. (2) Apostrophe in contractions. (3) Period in abbreviations. (4) Hyphen in the division of a word at the end of a line.
 - C. Nouns.—(1) Careful work in all points noted for first and second grades. (2) Common and proper nouns.
 - D. Pronouns.—(1) See work for preceding grade. (2) Teach correct use of this, that, these, those and them.
 - E. Verbs.—(1) See outline for preceding grades. (2) Teach use of may and can, shall and will.
 - F. Adjectives.—(1) See preceding outline. (2) Much drill in the use of comparative and superlative forms.
 - G. Adverbs.—(1) Study use of adverb with verb. (2) Correct common errors in use.
 - H. Prepositions.—(1) Teach use of at and to. (2) Correct errors in the use of prepositions.
 - I. Sentence.—(1) Subject, predicate and object. (2) Declarative and interrogative.
- II. Constructive English.
- A. Amplify all points suggested in outline for Second Grade.
 - B. Give frequent exercises in letter writing by assigning work in any of the elements, to be prepared in the form of a note or a letter. This should be continued throughout the grades, so that no pupil above the third grade shall be allowed to remain in ignorance of some approved form of a letter.
- III. Interpretative English.
- A. Hints.—Extend work of Second Grade. Select material from readers and elsewhere that sets forth concretely character-consequences without telling the child what he should be allowed to infer for himself, such as "The General and the Corporal" and "The Boy Who Tried." Many selections can be made usable by cutting out the moralizing paragraphs.
 - B. Emotional words and phrases.—Extend work of Second Grade. "The Death of the Flowers" and "Hiawatha's Sailing" are valuable for study. Draw on readers for all available material.
 - C. Figures.—Careful work on metaphors selected from the better grade of reading material, based upon previous study of types. See outline of Constructive English, Second Grade.

Fourth Grade.

I. Technical English.

- A. Capitals.—(1) Review work of the preceding grades and (2) give all uses which are needed in reading and writing.
- B. Punctuation.—(1) Note outlines of preceding grades and (2) teach use of exclamation point.
- C. Nouns.—Extend work as laid out for preceding grades.

- D. Pronouns.—(1) See preceding outlines. (2) Train in a correct use of relative and interrogative pronouns.
- E. Verbs.—(1) See preceding outlines. (2) Teach correct forms of irregular verbs to be used with have, has, or had. Teach correct use of contracted forms such as don't, doesn't, etc.
- F. Adjectives.—(1) Extend work of preceding grades. (2) Study formation of comparative and superlative degrees by use of "more" and "most," also (3) such irregular adjectives as are in common use.
- G. Adverbs.—Extend the work as outlined for Third Grade.
- H. Prepositions.—Extend work as outlined for previous grades.
- I. Sentence.—(1) Review work for Third Grade. (2) Teach exclamative and imperative sentences.
- J. Synonyms.—Study some of those in most common use.
- K. Word-building.—Study words whose opposites are formed (1) by affixes and (2) by a different word.

II. Constructive English.

- A. Review and amplify all points in outline for previous grades.
- B. Condensation and elimination of "padding."

III. Interpretative English.

- A. Hints.—(1) As given for preceding grades. (2) Teach pupils to discriminate hints which show effects of character and mood. "How Little Cedric Became a Knight" and "The Encounter with the Panther" contain good material.
- B. Emotional words and phrases.—Amplify work of preceding grades. Good material can be found in all readers.
- C. Figures.—(1) Extend work as outlined for Third Grade. (2) Personification studied similarly.

Suggestions.—By the end of the fourth year, the work in English should be nearly equally divided between written and oral exercises. Pupils of this grade should be able to give fairly good oral and written compositions on any points suggested in the outline. All written work should show correctly used capitals, punctuation, paragraphing, and spelling, within the limits of previous instruction. Do not expect long, finished products. Short exercises at frequent intervals are better for both pupil and teacher than those of greater length.

Fifth Grade.

I. Technical English.

- A. Capitals.—(1) Review work of previous grades. Drill on the use (2) with quotations and (3) with names of months and days.
- B. Punctuation.—(1) Review work of previous grades. Teach use of comma (2) in connection with short quotations informally introduced and (3) in series of words in the same con-

struction. (4) Hyphen in common words. (5) Use of caret. (6) Dash before name of author.

- C. Nouns.—Extend work of preceding grades.
- D. Pronouns.—(1) Review work of preceding grades. (2) Teach use of each and every, either and neither.
- E. Verbs.—(1) Review work of preceding grades, especially irregular forms. (2) Teach use of progressive form; use of complete form (3) to show the condition of the subject and (4) to show that the subject receives the action; (5) the agreement of verb with subject.
- F. Adjectives.—(1) Review work of preceding grades. (2) Extend work in comparison. (3) Teach use of each and every, either and neither.
- G. Adverbs.—(1) Review work of preceding grades. (2) Teach use with adjectives and other adverbs. (3) Comparison. (4) Correct the use of double negative.
- H. Prepositions.—(1) Extend work of preceding grades. (2) Distinguish “in” and “into” as to meaning and use.
- I. Conjunctions.—Drill in the use of and, like, and as, either and or, and neither and nor.
- J. Sentence.—Drill on work as outlined in preceding grades.
- K. Synonyms.—Study extended.
- L. Word-building.— Simple exercises.
- II. Constructive English. Exercises in
 - A. The visualization of persons continued.
 - B. Exercises in simple visualization of places.
 - C. Combinations of visualization of places and persons.
 - D. Character effects continued.
 - E. Combination of visualization of persons and character effects.
 - F. Study of emotional words and phrases continued.
 - G. Studies in types continued.
 - H. Simple fact statements to be told in an interpretative way.
 - I. Effects of incident **discriminated**.
 - J. The theme of pictures, simple stories, and poems to be used as the basis of written lessons.
- III. Interpretative English.

All elements as previously presented in the constructive exercises are to be made the basis of drill in connection with the regular reading lessons. The pupils are to be sent to the library and elsewhere for additional material.

Sixth Grade.

I. Technical English.

- A. Capitals.—(1) Review work of preceding grades. Teach use (2) with titles and abbreviations and (3) with names of the Deity.
- B. Punctuation.—(1) Review work of preceding grades. Teach

use (2) of period after Arabic figures numbering paragraphs, (3) of colon before formal enumeration or quotation, (4) of semicolon before *as*, *viz.*, etc., (5) Comma with interposed elements, (6) to denote the omission of a word, and (7) with series of any kind, (8) Double quotations. (9) Dash after side-headings. (10) Parentheses. (11) Apostrophe to form plural of letters, characters, etc.

- C. Nouns.—All classes and inflections and the four principal uses.
- D. Review use of verbs, pronouns, adjectives, adverbs, prepositions and conjunctions as outlined in previous grades.
- E. Drills in abbreviations of titles and in contracted forms. Extend list.
- F. Extend work in synonyms and word-building.

II. Constructive English.

- A. Extend work in all elements as outlined for Fifth grade.
- B. Combine visualization of places and persons with character effects.
- C. Make special study of mood effects.
- D. Combine mood effects with other elements.

III. Interpretative English.

Study of all elements in connection with regular reading lesson. Special studies of masterpieces of literature, such as "To a Waterfowl," "Tanglewood Tales," "The Kentucky Cardinal," and other available material.

Suggestions.—The exercises in constructive English in the Fifth and Sixth Grades should be made brief and should occupy about half the time given to English each week. Much of it should be in the form of letter writing.

Seventh Grade.

I. Technical English.

- A. Capitals.—(1) Review work of preceding grades. (2) Teach use with names of things personified.
- B. Punctuation.—(1) Review work of preceding grades. Teach use of comma (2) with opposite elements and (3) at the end of a long subject when necessary to make the meaning clear. (4) Dash to show sudden change of thought and (5) at the end of the line to show that the sense is incomplete. (6) Brackets.
- C. Review noun and verb, as previously studied.
- D. Complete the study of noun, pronoun, and adjective.
- E. Extend work in synonyms, word-building, abbreviations, and contractions.
- F. Simple sentence analysis.

II. Constructive English.

A. Extend work as outlined for previous grades, enlarging especially upon visualization of places.

B. Exercises in the visualization of groups.

III. Interpretative English.

Where readers are used, the material can be found in them for much of the work, through supplementary studies will be of assistance, such as "Evangeline," Chapters from "Cuore," "How They Brought the Good News from Ghent to Aix," "The Twenty-third Psalm," etc.

Eighth Grade.

I. Technical English.

A. Review use of capitals with summary of rules.

B. Punctuation.—(1) Review work of preceding grades. Use (2) of colon in compound sentences; (3) of semicolon in compound sentences; of comma (4) with transposed elements, (5) with independent elements, (6) in compound sentences; (7) a quotation within a quotation of single marks; (8) dash instead of parentheses. (9) A summary of all rules of punctuation, with illustrations, to be used as a review.

C. Review etymology in connection with summary of rules of syntax.

D. Complete study of verb, adverb, preposition and conjunction.

E. Complete study of analysis of sentences.

F. Extend work in synonyms, word-building, abbreviations, and contractions.

G. A brief history of the English Language to be given.

II. Constructive English.

A. Extend work as outlined in previous grades.

B. Combine the study of groups with all other elements.

C. Studies in force.

D. Discriminative use of kind and degree effects.

Suggestions.—The time given to Constructive English is twenty minutes daily in the Seventh Grade and fifteen minutes in the Eighth.

III. Interpretative English.

Most schools must depend upon outside sources for material for much of this work, owing to the general absence of suitable readers in the eighth grade. The most valuable material for studying effects in this grade is "The Bonnie Brier Bush" which can be obtained in inexpensive form. "The Famine" is valuable for the study of figures and suggestive words. "The Bunker Hill Oration" may be used for force. "The Chambered Nautilus" is appreciated by the pupils for the study of the theme. "Snow Bound," "Among the Hills",

"Songs of Labor," and "The Lady of the Lake" are good general studies.

Respectfully submitted,

A. A. REED,	} Committee
CELIA BURGERT,	
A. H. WATERHOUSE,	
J. F. HOSIC,	
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REPORT OF COMMITTEE ON ENGLISH FOR HIGH SCHOOLS.

The course here given is a continuation of the outline prepared for the grades last year, and it embodies the same fundamental purposes. All work in English should secure freedom and accuracy of expression and an appreciation of the ennobling things in literature.

The most careful guidance is needed along each line mentioned. The teacher should strive for freedom in writing. Do not limit or cripple the student by prescribing a theme of a particular length.

The committee is of the opinion that the pupils should be asked, or at least advised, to buy their literature books.

The committee would recommend that a minimum of four hours per week the first year, and three hours per week the three following years, be given to the subject of English in the high schools.

Your committee begs leave to submit the following report:

Ninth Grade.

I. Technical English.

1. Grammar study. A review of principles and inflections adapted to the needs of the class. Grammar for use rather than discipline is intended.
2. Capitalization.
3. Punctuation.
4. Abbreviations.
5. Forms of composition.
 - a. Heading.
 - b. Margin.
 - c. Indention of paragraphs.
 - d. Folding and indorsement.
6. Marks for correction of essays.
7. Review of ordinary letter forms.
8. Etymology as occasion arises.
9. Orthography and orthoepy incidentally.
10. Tense Formation.

II. Constructive English.

1. Extend the work as outlined in the preceding grades.
2. Description. A study of individual and class visualization.

SUGGESTED EXERCISES.—As an example of individual

visualization, ask the student to visualize some friend or prominent character in town; as an example of class visualization, he may describe briefly, by the use of class characteristics, a policeman and a doctor. Many exercises of a similar nature will suggest themselves to the teacher.

3. Individual and class characterization.
4. Visualization of places continued.
5. Visualization of interiors.

SUGGESTED EXERCISES.—In connection with this topic the student may be asked to write several themes in which the visualization of the room will suggest the character of the occupant.

These exercises should not be given until the student has written effective descriptions of several rooms.

6. Mood study continued and extended.

SUGGESTIONS.—As occasion arises, the work in technical English should be done in connection with the constructive work.

In all written work, consider natural and easy expression of chief importance.

It is also advised that every written exercise be carefully corrected by the teacher, and then returned to the pupil.

III. Interpretative English.

1. Continue the study of poetic and emotional words. Explain the the various classes and have the student bring examples of each class. Then begin "Evangeline," emphasizing the study of words. See Dr. Sherman's "Elements of Literature," and "The North-Western Journal of Education," for September and October, 1896.

2. Continue the study of "effects" of kind and degree.
3. Study of types.

4. Prose, poetic, and emotional phrases. A study of the borrowed elements in figures and figurative phrases.

SUGGESTIONS.—Have the student bring examples, such as "sighing treetops," and ask him to explain the derivation and force of the borrowed element in each example. Apply this work to the selections studied during the year.

5. A more extended study of the elements.

SUGGESTIONS.—Selected poems from Tennyson, such as "The Lotus Eaters," "The Passing of Arthur" and "Sir Galahad" may be used very effectively in the study of figures, phrases, and words.

6. The following points should be carefully studied in connection with all books assigned: (a) the author's meaning; (b) the central thought or purpose; (c) is the interest of the book mainly in the characters or in the incidents?

"Marmion," "The Cricket on the Hearth," "Sohrab and Rustum," and "The Lady of the Lake" may be studied in the same manner as the work already outlined, but none of these selections furnish sufficient material for the study of characterization: "Captains Courageous" might be used for the study of effects in this grade.

7. Selections for reading at home.

Each student will select from this list and report as directed

- a. Hawthorne: The Gray Champion, The Gentle Boy, Endicott and the Red Cross.
- b. Longfellow: Tales of a Wayside Inn.
- c. Poe: The Goldbug, The Purloined Letter.
- d. Dickens: A Christmas Carol.
- e. Scott: The Talisman, The Lady of the Lake.
- f. Cooper: The Last of the Mohicans, The Spy.
- g. Hughes: Tom Brown's School Days.
- h. Franklin: Autobiography.
- i. Hale: The Man without a Country.
- j. Dickens: Nicholas Nickleby.
- k. Dodge: Hans Brinker.
- l. Stevenson: Treasure Island.
- m. Bayard Taylor: Lars.
- n. Warner: Being a Boy.
- o. Eggleston: The Hoosier Schoolmaster.
- p. Dana: Two Years before the Mast.
- q. Porter: Scottish Chiefs.
- r. Dickens: The Old Curiosity Shop.
- s. Eggleston: American War Ballads.
- t. Irving: Life of Washington.
- u. de Amicis: Cuore.

Tenth Grade.

I. Technical English.

In this grade attention should be given, as the needs of the pupils demand, to the points mentioned in the Ninth Grade. While instruction in technical matters should now be incidental, it should by no means be neglected. A list of common errors in English is here given for the use of both teacher and pupil in the revision of exercises.

1. Misplaced modifiers.
2. Lack of concord.
 - a. Subject and verb.
 - b. Adjective and noun.
 - c. Pronoun and antecedent.
 - d. Subject and complement.
 - e. Principal and subordinate verb.
3. Mistakes of case.

4. Mistakes of mood.
5. Misuse of shall and will.
6. Adjective or adverb.
7. Conjunctions and prepositions
8. Reference of pronouns.
9. Unrelated participles.
10. Double negatives.
11. Wrong verb forms.
12. Improprieties and barbarisms.

II. Constructive English.

1. Conversation that characterizes.

SUGGESTED EXERCISE.—Ask the student to introduce two or more characters into his theme, and make the reader understand the character of each by means of the conversation.

2. Conversation that shows mood.
3. Visualization and characterization of a crowd.
4. Associational themes.

SUGGESTED EXERCISES.—Describe a place in such a manner that a stranger would wish to see it. Describe a place or a room in such a manner that the associational feelings are sad. Many exercises of a similar nature may be assigned.

5. Character through mood.
6. Write character sketches, selecting as subjects the various characters found in "Elaine."
7. During this and the following year the fundamental principles of good composition should be systematically presented. The main stress should be laid upon numerous short themes and occasional longer ones. Paragraph themes in descriptions of persons, places, and objects within the experience or observation of the pupil may be continued. Point of view, selection and arrangement of details, vividness and accuracy should receive attention.

III. Interpretative English.

"Tales of a Traveler," "The Vision of Sir Launfal," "Twice Told Tales," and "Elaine," and other Idylls constitute representative selections for study in this grade. These books or their equivalents may be used.

Study "Elaine," emphasizing the work on effects. See articles in "North-Western Journal" for 1897.

Written preparation on the part of the student should be required.

Excellent results may be obtained by reading "Elaine" and several of the other Idylls, omitting as deemed advisable, the first selections mentioned.



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Examples of the mode of association may be found in "The Tales of a Traveller." This book will furnish also some material for the study of the story. The mode of mystery may receive attention here.

The author's meaning, the central thought or purpose, and the selection and order of details, should be studied in connection with all books assigned for this grade.

Selections for reading at home.

Irving: The Alhambra, Selections from the Sketch Book.

Whittier: Snowbound, Among the Hills.

Goldsmith: The Deserted Village.

Hawthorne: The Old Manse, The Old Apple Dealer, House of Seven Gables, The Marble Faun.

Lowell: An Indian Summer Reverie, The Oak, Beaver Brook

Bryant: The Forest Hymn and others.

Poe: The Fall of the House of Usher, The Domain of Arnheim.

Blackmore: Lorna Doone.

Stevenson: Travels with a Donkey, An Inland Journey.

Smith: A White Umbrella in Mexico.

Allen: A Kentucky Cardinal.

Brown: Rab and His Friends.

"Ouida": A Dog of Flanders.

Wordsworth: Michael, Hart-Leap Well.

Byron: Childe Harold.

Kipling: The Jungle Book.

Warner: A-Hunting of the Deer.

Wallace: Ben Hur.

Eleventh Grade.

I. Technical English.

The directions for work in the Tenth Grade should here be followed. Attention should also be given to polite correspondence and to forms for official and other business.

II. Constructive English.

1. Subordination.

SUGGESTED EXERCISES:—Write themes introducing conversation between two people, and make prominent the mode of subordination.

Many kinds of exercises under this topic may be assigned.

2. Interpretative writing.

SUGGESTED EXERCISES.—Write short themes in which such prose statements as "it is winter" are expressed in the feeling way.

3. Negative characterization.

SUGGESTION.—The student should introduce first character hints which give the reader a mistaken impression.

Hints which give the reader a mistaken impression. Hints which establish the true character should then follow.

4. Write short original story.
5. In this grade an attempt should be made to enlarge upon and complete the study of fundamental principles begun in the preceding grades.

SUGGESTION:—Narrative, descriptive, themes, plot, character, and mood. One element should be considered at a time and many short exercises be prepared and discussed. A theme of some length may be undertaken near the close of the year. These themes should be carefully criticised and revised in the light of all previous work.

The note books in the study of literature should be regarded as part of the composition work, and time should be allowed for their careful preparation.

III. Interpretative English.

The following selections contain material suitable for the Eleventh Grade: Browning, Selected Poems; Maclaren, "Beside the Bonnie Brier Bush"; Chaplin, "Eli," "The Village Convict." If time permits, one of Tennyson's Idylls, or its equivalent, may be read. It is suggested that the selections be studied in the order mentioned above.

The stories of "Eli" and "The Village Convict" will furnish excellent material for a study of visualization, character and mood. They may also form a basis for the study of story construction.

It is assumed that topics suggested before will be here kept in mind, and adapted to the particular selection of prose or verse in hand. The setting, the structure, the elements used, the plot, and the central thought will suggest topics in addition to those already mentioned.

Selections for home reading:

Goldsmith: The Vicar of Wakefield.

Dickens: David Copperfield, and Oliver Twist.

Thackeray: Vanity Fair.

Mulock: John Halifax.

Scott: Heart of Midlothian, Old Mortality.

Howells: The Rise of Silas Lapham.

Wilkins: A New England Nun.

Barlow: Irish Idylls.

Stevenson: Master of Ballantrae.

Barrie: A Window in Thrums.

Twelfth Grade.

1. Technical English.

1. Intensive work in grammar. Six or eight weeks should be given to this.

II. Constructive English.

1. Exposition. Occasional themes should be written outside of class. Personal consultation and class criticism should constitute important features not only of this particular topic but also of all the work in English.
2. Argument. Nature and purpose. Kinds. Order. Climax.
3. Actual practice in debate.
4. The constructive work of the Eleventh Grade should be continued.

III. Interpretative English.

The minor poems of Milton, "Paradise Lost," I and II, "Silas Marner," and "Macbeth," or their equivalents are recommended as suitable books for the work in this grade.

The Play of "Macbeth" should be studied with Dr. Sherman's analytic questions. A note-book should be used by the student, and written work handed in at each recitation.

"Silas Marner" will furnish material for the study of the novel. If time permit, the minor poems of Milton, and "Paradise Lost," I and II, may be taken up for additional study.

The committee thinks it best that all the interpretative work of the Twelfth Grade should be given consecutively in the first semester; and that the technical and constructive English should occupy the second semester.

SUGGESTION.—Those high schools that do not continue the work beyond the Eleventh Grade may omit some of the selections mentioned in the Ninth, Tenth, and Eleventh Grades, and select for the last year's work Macbeth or other desired topics from the work as outlined for the Twelfth Grade.

Selections for home reading:

Emerson: Friendship, Self-Reliance.

Wordsworth, Coleridge, Byron, Keats, Shelly, Burns: Selected poems.

Arnold: On the study of Poetry, Culture, and Anarchy.

Holmes: The Autocrat of the Breakfast Table.

George Eliot: Romolo, and Adam Bede.

Addison: Sir Roger de Coverley.

Ruskin: Of Kings' Treasuries.

Lamb: Essays of Elia.

Tarbell: Abraham Lincoln.

Hawthorne: Our Old Home.

Shakespeare: The Tempest, A Midsummer Night's Dream,

As You Like It, Twelfth Night.

Ollivant: Bob, Son of Battle.

Thompson: Wild Animals that I Have Known.

Scott: Ivanhoe.

Kingsley: Westward Ho!

The Committee is indebted to Mr J. F. Hosic for the Home Readings, and the work on technical English.

WILL S. HEITZMAN, Chairman.

MYRTLE I. WHEELER,

HERBERT O. SUTTON.

GEO. N. PORTER,

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Committee.

GEOGRAPHY.

AIM.

1. The Normal course should be made a review of grade and high school geography, emphasizing method of teaching the subject.

2. The instruction should be offered by persons who are trained in geography teaching.

3. The teaching should be made concrete rather than abstract. Field, experimental and observational work should be employed to bring out geography facts and types.

4. Of the nine weeks, two weeks should be devoted to general principles of geography; two weeks to a comparative study of continents; two weeks to the United States; and three weeks to Nebraska, including exercises in home geography.

OUTLINE OF COURSE.

I. General discussions to show what geography is; its place in the schools; and how it is related to other subjects. (Time 3 weeks.)

1. The View Point—Definition of subject. Why classed as one of the five essentials? What are geography facts? What are the purposes of geography instruction? How is the subject related to nature study? To Agriculture? Botany? Zoology? Reading? Explain the definition, "Geography is the study of the earth as the home of man and of life in general." How does the earth influence man? What is meant by the terms "relation," "control," "type?" Give examples to illustrate each.

2. Parts of the Earth or the Spheres of Influence—Study each sphere in general, giving its position, form, mass, extent, physical and chemical character. Compare the atmosphere and the water sphere (Hydrosphere) in motion, compressibility, elasticity, resistance to motion, etc. Can you see, weigh, and hear each? How are the atmosphere, hydrosphere and lithosphere related? To what sphere do living things belong? In what sphere are most plants and animals found and why?

3. Geographic Influences—Define. How are animals related to air, to water and to the ground? As shown by its structure to what

spheres is a duck adapted? A fish? In what ways does the atmosphere influence (1) crops, (2) animals and (3) man? Note some of the effects of sunshine, temperature, wind and rainfall. Why do we study these weather and climatic elements in geography? What relations exist between mineral industries and the rock formations? Between topography and travel? Drainage and disease? Soil and agriculture? Harbors and cities? Make an outline to show the principal geographic influences. Which of these affect people most?

4. Departments of Geography—Compare; give relations of each to the other.

- A. Physical—Define, facts of
- B. Industrial—Define, facts of
- C. Commercial—Define, facts of
- D. Political—Define, facts of

5. Geography by Grades.

A. Home geography—Purpose. Relation to nature study. Why important? What does it include? How taught? Enumerate the home geography relations.

B. The Primary Text—When introduced? Relation to home geography. Foreign relations in geography. How use the text?

C. The advanced text. When introduced? Why follow Primary text? Do we spend too much time on the primary or advanced texts? Why cover about the same ground in each? In what respects do the texts differ? How use text?

D. Regional Geography—Define. Purpose. How like home geography? Why follow advanced text?

6. Study of Geography Texts. Compare the Frye, Dodge, Natural and the Tarr and McMurray series, noting in each the illustrations, maps, exercises, questions, style, plan, continuity of plan, sequence of subjects and the fitness of each book in its series for the grades for which it was written. Which series emphasizes physical features most? The Industrial? Which is best adapted to country schools? To town and city schools? Which is written most from the view point of children? Of the geographer? Which is easiest taught? Which gives the best notion of geography as a whole?

7. Illustrative Materials and Methods of Instruction. Give a few periods to the use of specimens with which to illustrate the forms of industries; the handling of globes; making and interpretation of maps, and to field excursion.

II. Comparative Study of Continents. (Time two weeks.)

Study and compare continents as to position, form, area, coast line, mean annual temperature, heat belts, wind systems, rainfall, relief, drainage and topography, vegetation, native animals, people, po-

litical divisions, governments, resources, products, industries, commercial centers, methods of transportation and trade routes.

III. Geography of the United States. (Time, two weeks.)

Use Russell, Dodge, Powell, Frye, and Tarr and McMurry as references. Follow outline in Complete Geography by Tarr & McMurry or in Dodge's Advanced Geography. See library references. Do laboratory work with weather and topographic maps, climatic charts, wall maps, etc.

IV. Geography of Nebraska and Home Geography. (Time, three weeks.)

Use topographic maps, geological atlases and folios, and illustrative material. Text—Geography of Nebraska. Follow outline of text. Discuss method of teaching text and subject. The questions at the end of each chapter of text will serve to bring out geographic relations and as a basis of home studies. Make frequent use of library and of McMurray's Excursions and Lessons in Home Geography.

EQUIPMENT.

Secure weather maps from Section Director of Weather Bureau, Lincoln; Climatic Chart from Department of Agriculture, Washington, D. C.

Topographical Maps—See directions in Geography of Nebraska.

Topographic Atlases, 1, 2 and 3, U. S. Geological Survey, Washington, D.C. These are 25 cents each, except No. 3, which is 50 cents.

Scotts Bluff Folio, 25 cents; U. S. Geological Survey.

Physical Maps.

Political Maps.

Blank Maps of United States and of Nebraska.

Drawing Materials.

Geologic Atlases 28, 30, 70, 74, 81, 83, 87, 88 and 112. The United States Geological Survey, Washington, D. C. Send for prices.

Thermometer.

Maximum and Minimum Thermometer.

Rain Gauge.

Mineral and rock specimens with which to show processes, industries, structure and soils.

Laboratory work may be done according to either of the following laboratory guides: Brigham, D. App. & Co.; Trafton, Ginn & Co.; Wright, Field Laboratory and Library Manual in Physical Geography; Atkinson, Mentzer & Grover, Laboratory Manual in Physical Geography.

LIBRARY REFERENCES.

These should be in the general teacher's library, where they may be consulted by the Normal class.

The Journal of Geography, \$1.50 per year, Syracuse, N. Y., and

the National Geographic Magazine, \$2.50 per year, Hubbard Memorial Hall, Washington, D. C., are indispensable.

The following are recommended for reference:

Adams' Elc. Commercial Geography—D. Appleton & Co.

Barbour, Vol. 1, Nebraska Geological Survey (out of print)—Nebraska Geological Survey.

Brigham, Geographic Influences in American History—Ginn & Co.

Brigham, Geology—D. Appleton & Co.

Carpenter, Geographical Readers—American Book Co.

Chamberlain & Salisbury, Geologic Processes, Vol. 1—Henry Holt & Co.

Condra, Geography of Nebraska—University Pub. Co.

Davis, Elementary Physical Geography—Ginn & Co.

Davis, Elementary Meteorology—Ginn & Co.

Davis-King-Collie, Government Maps in Public Schools—H. Holt & Co.

Dodge, Series of Geographies—Rand, McNally & Co.

Dryer, Physical Geography—American Book Co.

Frye, Series of Geographies—Ginn & Co.

Gannett-Garrison-Houston, Commercial Geography—American Book Co.

Gilbert and Brigham, Introduction to Physical Geography—D. Appleton & Co.

Hitchcock, The Louisiana Purchase—Ginn & Co.

King, Methods and Aids in Geography—Lee & Shepard.

McMurray, Special Methods in Geography—Macmillan Co.

McMurry, Excursions and Lessons in Home Geography—Macmillan Co.

Mill, etc., International Geography—D. Appleton & Co.

Norton, Elements of Geology—Ginn & Co.

Parker, How to Study Geography—D. Appleton & Co.

Powell, etc., Physiography of the United States—American Book Co.

Redway, New Basis of Geography—Macmillan Co.

Ries, Economic Geology of the United States—Macmillan Co.

Russell, North America—D. Appleton & Co.

Semple, American History and Its Geographic Conditions—Houghton, Mifflin & Co.

Tarr, New Physical Geography (Revised)—Macmillan Co.

Tarr and McMurry, Series of Geographies—Macmillan Co.

The World and Its People (the series)—Silver, Burdett & Co.

The larger schools may be able to secure a complete set of the Twelfth Census from the United States Department of Commerce and Labor, Washington, D. C.

Water Supply Papers and other bulletins published by the United

States Geological Survey are valuable references and free, when not out of print.

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UNITED STATES HISTORY.

AIM AND SCOPE.

I. The object to be kept in mind should be to prepare young people to teach United States History in the rural schools. Those who can teach history well in the rural schools can teach it in any grade in the town school. But the reverse is not true. The course should be for those mature enough to teach, others will not get the best results from it. The course should be given in the senior year, and be built upon previous history work done in the high schools and grades.

II. What the teacher of United States History in the rural schools should know before attempting to teach the subject:

A. He should know the aim or purpose of the subject—the purpose of the subject as a science, and the reason for its being in the course of school instruction. Unless he has definite ideas on this, his work is liable to be aimless, scattered, and result in no definite accomplishment.

1. He should know the definition of history and understand it thoroughly—so thoroughly that he can continually test his work by it, and point out its application as the study proceeds.

2. He should know, too, that in our country, where the welfare, stability, and efficiency of the government rests primarily on the intelligence of the citizens, the most important part of this intelligence is derived from the study of history.

B. He should have a good grasp of the facts of the portion of the history he expects to teach. This means the whole of American history, including the biographies of the prominent characters.

1. Unless he has this knowledge before beginning to teach—

a. He will be overwhelmed with the daily preparation of lessons.

b. He will go wrong continually in guiding the student, because he has not himself a clear view of the goal to attain.

2. This does not mean that he should know all the

minutiae of that history, but the broad lines of development, the important features, the prominent characters and events, and should be able to trace the development of our principal institutions, movements, and activities. He should be able to give briefly a comprehensive outline of the whole subject.

C. The teacher of history should be a student of history and as a student he should know how to proceed—

1. To find materials—the sources for his study.
2. To collect and sift facts, and estimate their relative worth.

3. To group them into logical form.

4. And to present his accumulated facts in what seems to him a truthful account of the subject considered, based on the evidence at his command.

5. He should know something of the value of the works he has at his command, or has access to. He should become acquainted with at least a few of the better authors, know the difference between the original sources and the secondary writers, and the peculiar value of each.

D. The teacher of history should have some knowledge of the relative importance of the various portions of history as found in the text or outline, so that he may wisely select, if for some reason his class should not be able to complete the book or outline, or course prescribed.

E. The teacher of history should have some knowledge of the work that may be, and ought to be, done in the various grades. He needs this knowledge, not only in planning the details of regular course work, but in order to arrange harmoniously the lower grade reading, supplementary work, etc., so as to produce the best results when the regular study of history is taken up later.

F. The would-be teacher of history should have some definite ideas of assigning lessons, directing pupils in the preparation of their lessons, and hearing recitations.

G. He should know that he will probably not find things ideal in the school which he engages to teach, but that he must fit his plans to the pupils and equipments until he can induce or produce changes for the better. While this is a general caution it should be made especially in the History department, where so commonly conditions are far from what they ought to be.

III. What the teacher of history should feel—

A. The subject of history is the most important of all, so far as making intelligent citizens of a free democratic government is concerned.

B. He must have a real desire to teach the subject well if he is to accomplish results.

C. The lessons from the study of history are numerous and valuable, but it rests largely with the teacher to make these apparent.

IV. What the course should include—

A. A consideration of the aim and purpose of history.

1. The definition—not a formal definition, but a concrete realization of its meaning. Emphasis to be placed on the evolutionary nature of history, its unity, and the relation of events to each other; interpretation of events and movements should be especially emphasized in this normal course.

2. An amplification of the definition and purpose of the subject in the classroom work.

B. A careful study of the main features of American history

1. This should not be a mere review or a substitute for the regular course, but a new course so planned for each school that the student will receive a distinct addition to his knowledge of the history of the United States.

2. So much here depends on the teacher, the pupil, and the previous work accomplished, that a definite, specified course might result in disappointment so far as results are concerned; however your committee ventures the following recommendations:

a. The subject should be taught by outline, rather than by following a single text-book; other methods are approved, as the "multiple text" plan; also the use of a single text with assigned readings from the sources and more advanced narrative works. All the recognized approved methods may be used, and ought to be explained.

b. "The Outline of American History by the New England Historical Teachers' Association," should be taken as a standard, but not slavishly followed.

c. The use of texts faulty either in fact or method of procedure should be avoided.

d. Since the whole of American history cannot be covered in one semester's work, only the most important points should be considered previous to 1763: (1) A very brief study of old world conditions that led to the movement may be made; (2) territorial claims by the various European nations should be noted—extension and extinction followed in general outline; (3) colonial development previous to 1750 should be confined mainly to Massachusetts, Virginia

and Pennsylvania—and here only the principal institutional features should be noted; (4) the French-English rivalry, 1600-1750, and its culmination in French and Indian war should be studied in its broad outlines. In the period after 1763 all purely military operations of the wars should be omitted, and such other topics as the particular conditions of the case may require.

e. A short review of the Constitution of the United States should precede the study of the constitutional period.

f. The other topics of Civil Government should be reviewed as they occur in connection with the history.

g. The reference books used should be of the sort that may be used in the rural schools, rather than the larger works.

C. At least one paper should be prepared, showing the results of the intensive study of a short period or institution involving all the steps from the finding of the material to the completion of the narrative.

D. Chronological tables should be prepared by the student to indicate the steps of the development of all important institutions, etc.

E. Sketches of a few of the best authors should be given to show who they are, or were, position occupied, methods of work, so that the student-teacher has a familiar feeling with the works of an author, and can take an interest in his works that comes only with such familiarity.

F. The work that may be done in the lower grades may be taught by referring to the course of study in the home school and in the State Course of Study. This work should be outlined for each grade.

G. Instruction and practice should be given in laying off the work, assigning the lessons, giving direction for their preparation, and even hearing recitations. In connection with this part of the work, visits could be paid to the lower grades and where possible to some rural schools.

H. Short readings from some good elementary work on the teaching of history should be made, not so much for the information gained from the book as for inspiration, and for teaching them that there are such works. McMurry, Kemp, Hinsdale, Macy, Bourne, and the Report of Committee of Seven are good.

V. The teacher of United States History should know more than he expects to teach. He should not only have a good understanding of American history, but also some knowledge of European history, es-

pecially that of England from 1500 on. The more he knows of European history the better he will understand and teach American history. Throughout this course the instructor should constantly keep in mind the preparation of teachers, and the student should have his notebook ready at all times to note helps and suggestions. An able teacher with an earnest desire to instruct, and a diligent student with an earnest desire to learn, cannot help but make a change in the teaching of history in the rural schools.

OUTLINE.

The American History department of the University has, at the request of the state superintendent, attempted a suggestive outline of a Normal Course in American History. Being intended as supplementary to and interpretative of the regular high school course, and not a substitute for it, the outline aims mainly at the bringing out of only the most important and significant items of the various periods covered, trusting to previous study and the daily preparation of the teacher for details and background. The department expresses its willingness to aid teachers of the state in adapting this outline to the varying needs and conditions of the different schools, and to make clear to inquirers, either in person or by letter, any portions of the outlined course that do not make themselves understood.

A.—The Colonial Period

- I. Conditions leading to Old World discovery of America—
 1. Commercial necessity of new trade-routes to Asia and India about 1450-1500.
 2. Renaissance beginnings of revival of geographical theorizing as to possible new routes to the East.
 3. Personality, training, ideals and ambitions of Columbus.
 4. European conditions responsible for Spanish support of Columbus' experiment, and its "monopoly" of America for a century (1492-1607).
- II. Rise of rival European colonizations in America—
 1. English colonization of Virginia (1607) and New England (1620-1640), with special emphasis upon the conditions in England responsible for the latter and influencing later development of the colonies.
 2. French colonization of St. Lawrence valley (1608) and expansion about Great Lakes and into Mississippi valley (1608-1687).
 3. Dutch colonization of New York (1614-30) and Swedish colonization of Delaware (1638); quick absorption of Swedes by Dutch (1655) and Dutch by English (1664).
- III. Chief institutions developed by English colonists in America, 1607-1754.
 1. Varying forms of local self-government—

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- a. New England "township" and "town meeting."
 - b. Southern "county" (or "parish" and "vestry").
 - c. Pennsylvania and New York combination of "township" and "county" systems.
 2. Nearly uniform type of colonial (later state) government—
 - a. Governor, appointed by king; veto power.
 1. Elected governor in Massachusetts, Connecticut, Rhode Island.
 - b. Council (partially an upper house of legislature, partially governor's advisors), chosen by king or his officers; veto.
 1. Elected in Massachusetts, Connecticut, Rhode Island.
 - c. House of Deputies, or Burgesses, or Representatives, elected by voters of colonies; **lay taxes**, pass laws, pay salaries of king's officers; generally serve as colonial supreme court.
 - d. Religious, property and other severe restrictions upon suffrage and office holding.
 3. No permanent intercolonial union, or general organ for imperial authority in America.
 - a. English political control through Governors and Councils.
 - b. English commercial control through trade laws, (1652-1696).
 4. Union of church and state, except in Pennsylvania and Rhode Island.
 - a. Congregational in New England; persecution of dissenters.
 - b. Episcopal in Virginia, New York, Maryland, etc.; little persecution of dissenters.
 - c. Separation church and state in Pennsylvania and Rhode Island for different reasons.
 - d. General persecution and proscription of Catholics after 1680.
 5. Sectional economic development—
 - a. Northern commerce, fisheries, shipbuilding, small-farm agriculture, and "manufacturing;" free or "indentured" labor.
 - b. Southern "plantation" (tobacco, rice, indigo) system; slave labor.
 - c. Middle colonies' large-farm (corn, wheat, etc.) agriculture, commerce; free, "indentured" and slave labor.
 6. Chief social variation from Old World—Development of "Westerner."

- a. Fundamentals of social life English from 1600 to 1800.
- b. Sectional variations, due to (1) character of settlers, (2) environment and its results.
- c. Influence of constantly extending "west," unlike anything in world from which colonists came.

B.—The Revolutionary Epoch (1754-63 to 1783)

I. The "French and Indian War" (1754-63) and its relation to the American Revolution.

- 1. "French and Indian War"—climax of French-English struggle for world-empire (including America).
- 2. Results—English world-supremacy; French expulsion from America; division North America between England and Spain.
- 3. Relation to Revolution—
 - a. Revealed to England (1) American evasion "trade laws," (2) lack of imperial authority or organs of government in America, (3) American wealth and spirit; attempts to meet these by Parliamentary legislation one of main causes of revolution.
 - b. Revealed to Americans their own strength and weakness of British; made sections acquainted; bred spirit of union.
 - c. Burdened England with debt and large colonial system, leading to colonial taxation and administration reforms.

II. The Political Revolution (1764-1776)—

- 1. First English attempt to introduce "change of policy" in American colonies, 1764-66.
 - a. Causes—French and Indian war revelations (see I, 3, a); new king, parties, and conditions in England; advice of royal officers in Colonies.
 - b. Changes attempted—enforcement trade acts (Sugar Act, 1764), maintenance English army in America (Quartering Act, 1765), Parliamentary Taxation of Colonies (Stamp Act, 1765).
 - c. American opposition—"Englishmen's constitutional rights;" "no taxation without representation."
 - d. English repeal, but with "Declaratory Act."
- 2. Second attempt (1767-1770)—
 - a. Cause—new financial needs; belief that new method taxation not objectionable.
 - b. "Townshend Acts," 1767; trade, quartering, revenue.
 - c. American opposition—"Englishmen's constitutional rights," and also "natural rights of man;" "no legislation without representation."
 - d. English repeal of revenue act except tax on tea.

3. Third attempt (1773), and endeavor to force colonial acceptance; Revolution and Independence.

- a. Three years (1770-1773) preparation before new attempt to tax.
- b. Cause of Tea Act, 1773; aid English East India Tea Co., and introduce principle of taxation.
- c. Importation taxed tea, 1773; colonial return or destruction of tea; "Boston Tea Party."
- d. English attempt to force acceptance; "Intolerable acts," 1774; colonial defiance (First Continental Congress).
- e. Increased attempt to enforce (coercive acts of Feb.-Apr., 1775); colonial preparation for armed resistance (Second Continental Congress).
- f. English declaration of colonial rebellion; colonial Declaration of Independence; setting up of independent state governments.

III. The Military Revolution (1776-1783)—

1. The war in the North, or the "struggle for the center" (Hudson valley), 1776-1777, 1777-1779; French alliance and aid; formation of the Confederation.
2. War in the West, and on the sea.
3. War in the South (1778-1781); new plan of British invasion; initial British success; period of American despondency; final American victory.
4. Peace—difficulties in beginning negotiations; Spanish and French attempt to limit boundaries; struggle over Tories; final terms.
5. Results of the Revolution on America, England, world-life.

C.—Constitutional Period.

I. Formation of the Constitution, 1780-89—

1. Failure of Confederation; reasons.
2. Movements looking to a Constitutional Convention.
 - a. By individuals, Washington and others.
 - b. By state legislatures, New York, Massachusetts, etc.
3. Events hastening this movement.
 - a. Lack of revenue.
 - b. Commercial decay; separate state control.
 - c. Shay's rebellion, 1786.
 - d. Washington accepts leadership.
4. The convention; membership; work, etc.
5. Ratification by state conventions; form, reasons for, etc.
6. Summary of arguments for and against constitution.
7. The North-West Ordinance.

II. Putting the constitution into operation, 1788-1793—

1. Elections—congress, the president; organization.

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2. Creation of executive departments—State, War, Justice.
 3. Organization of the Judicial Department.
 4. Early measures.
 - a. Revenue laws—tariff, internal taxes.
 - b. Assumption State debts; funding national debt.
 - c. The bank; broad and strict interpretation.
 - d. A neutral policy proclaimed.
- III. Foreign relations dominant, 1793-1815—
- A. During Federal party control, 1793-1801.
 1. French-English sympathies; English leanings.
 2. Jay's treaty; French opposition.
 3. X. Y. Z. affair; hostilities with France.
 4. Alien and Sedition laws.
 5. Virginia and Kentucky resolutions; State Sovereignty doctrine stated.
 6. Federal party splits; Adams vs. Hamilton; Republicans triumph.
 - B. During Republican supremacy, 1801-1815.
 1. Foreign relations; French leanings.
 2. Simplicity; ceremonies abandoned; debt reductions, etc.
 3. Expansion—purchase Louisiana, arguments.
 4. War in Europe; Orders in Council and Decrees.
 5. Remedy for our wrongs; peaceful means; Embargo and Non-Intercourse.
 6. Insults by both England and France; war 1812.
- IV. Nationality established, 1815-30—
1. Disintegration and reorganization of political parties.
 - a. Federalists disappear; "Era Good Feeling."
 - b. National Republicans vs. Democratic Republicans.
 2. Internal questions replace foreign.
 - a. The bank.
 - b. Protection; growth; becomes sectional.
 - c. Internal improvements.
 3. The westward movement and rise of western political influence.
 - a. Florida annexed; eyes on Texas and the Pacific.
 4. The slavery question begins to enter political discussion.
 - a. The Missouri struggle.
 - b. Compromise—the line 36' 30" drawn.
 - c. First signs of a reaction towards strict construction and States' Rights.
 5. The Monroe Doctrine.
 - a. Rise of South American republics.
 - b. The attitude of Europe; Holy allies.
 - c. Real meaning; authorship.
 6. The canal and railroad; the American character clearly in evidence.



NORMAL TRAINING CLASS, CRETE HIGH SCHOOL, 1907





NORMAL TRAINING CLASS, SUPERIOR HIGH SCHOOL, 1907

V. Democracy triumphant, 1830-45; development of State Sovereignty Doctrine.

1. The people in power; Jackson their representative.
2. Reforms on one side; the spoils system on the other.
 - a. Prison reform; imprisonment for debt ends; moral awakening; temperance movement; abolitionism.
3. Nullification.
 - a. Its theory; Calhoun.
 - b. Its overthrow; Jackson, Webster.
 - c. Compromise of 1833 vs. "Force Bill;" Clay.
4. The slavery question; its development.
 - a. Abolitionists; doctrines; Garrison.
 - b. Right of Petition; J. Q. Adams.
 - c. Change of Southern point of view; "Slavery a good."
5. The economic issues (losing political importance).
 - a. Bank; tariff; currency.
 - b. The crisis of 1837; its causes and effects.
 - c. The independent treasury.
6. Development of internal improvements under States.

VI. The slavery issue dominant, 1845-1865—

1. Annexation of Texas; terms; effects.
2. The Mexican war; settlement of Oregon boundary.
 - a. Causes of war; its justness.
 - b. Territorial acquisitions; California, etc.; area; importance.
3. The question of status of the territories.
 - a. Theories; congressional control; popular sovereignty; property rights doctrine.
 - b. Compromise of 1850; terms; results.
4. The final events leading to Civil War.
 - a. The Kansas-Nebraska bill.
 - b. The Dred Scott decision.
 - c. The struggle in Kansas; Lecompton constitution.
 - d. Breach in Democratic party; Douglas.
 - e. John Brown raid; Brown's trial and death.
 - f. Election of Lincoln by Republicans.
5. The Civil War.
 - a. Attempts to compromise, 1860-61.
 - b. Outline events of war.
 1. Military—enlistment; draft; etc.
 2. Emancipation; effects.
 3. Economic; bank, tariff, etc.

VII. Reconstruction, 1865-1877—

1. Various theories and plans; presidential, congressional, etc.
 - a. Military reconstruction, 1867.
 - b. Amendments to Constitution.

2. "Carpet-bag" governments, 1868-77.
 - a. Formation of the solid South; white supremacy restored.
3. Corruption and reform.
- VIII. Development since 1877.
 1. Party contests and principles; party names.
 2. Foreign affairs.
 - a. Purchase Alaska.
 - b. Annexation Hawaii.
 - c. The Spanish war and results.
 3. Industrial problems.
 - a. Labor issues.
 - b. Transportation and the trust problems.
 4. Economic problems.
 - a. The tariff.
 - b. The currency question; specie payments; the silver coinage struggle.
 5. Social, religious and moral conditions.

H. W. CALDWELL, University of Nebraska,
 C. N. ANDERSON, Kearney State Normal,
 CORA O'CONNELL, Ashland,

Committee,

AGRICULTURE.

TWO SEMESTER (ONE YEAR) COURSE.

SYNOPSIS.

	Class Work Number of Periods.	Laboratory Work Number of Double Periods.
First semester.		
I. Farm animals	32	8
II. Milk and its products	20	5
III. Soils.....	12	3
Total.....	64	16
Second semester:		
III. Soils (continued)	12	8
IV. Field crops.....	18	12
V. Orchard and garden crops.....	18	12
Total.....	48	32

1. OUTLINE OF CLASS EXERCISES.

1 Farm Animals.

Horses.—The primitive horse as revealed by geological discoveries. Wild races and their habitat. Domestication by ancient peoples.

Uses since earliest times. Classification of modern breeds according to types; draft, general purposes, roadsters; adaptation of each type. Development and characteristics of the leading breeds: draft—Percheron, English shire, Clydesdale, Belgian, Suffolk; general purpose French Coach, German Coach, Cleveland Bay; Roadsters—English thoroughbred, American trotter, Morgan, Hackney, Kentucky saddle horse, ponies.

Cattle.—Species, wild and domesticated. Distribution among ancient peoples. Classification according to types; beef, general purpose, dairy; adaptation of each type. Development and characteristics of the leading breeds: beef—Shorthorn, Hereford, Angus, Galloway, Polled Durham; general purpose—Red Polled, Brown Swiss; dairy—Jersey, Guernsey, Holstein.

Sheep.—Species, wild and domesticated. Distribution among ancient peoples. Classification, mutton, wool; adaptation of each type. Characteristics of each of the leading breeds: mutton—Shropshire, Hampshire, Southdown, Oxford, Cheviot, Dorset-Horned, Lincoln, Leicester, Cotswold; Wool—American Merino, Delaine Merino, Rambouillet.

Swine.—Species, wild and domesticated. Early distribution. Classification according to types; lard, bacon; adaptation of each type. Development and characteristics of the important breeds: lard—Berkshire, Poland China, Duroc-Jersey, Chester White; bacon—Yorkshire, Hampshire, Tamworth.

Poultry.—History, types, breeds, etc. Classification of chickens according to types; laying, general purpose, meat. Characteristics of the leading breeds: laying—Leghorns, Minorca, Black Spanish, Hamburg; general purpose—Plymouth Rocks, Wyandotte, Orpington, Rhode Island Reds; meat—Brahmas, Langshans, Cochins. Turkey raising.

Food and Sanitation.—General principles to be observed in the feeding of all farm animals. Food requirements for body maintenance, meat and milk, with reference to quality and quantity of food. Palatability of foods. Regularity of feeding. Feeding and management of dairy cows, beef cattle, sheep, swine, horses, poultry.

Stable sanitation and prevention of diseases.

2. Milk and Its Products.

Milk.—Milk secretion. Composition of milk. Properties of milk. Milk solids, per cent and commercial value. The “milk dairy” and milk as food. Contamination of dairy products. Prevention of contamination. By-products of the dairy.

Cream and Butter.—The creaming of milk by gravity and centrifugal force. Ferments in milk and cream. Care and preparation of cream for market. Care and ripening of cream intended for butter-making on the farm. Care of dairy machinery and utensils. The mar-

keting of dairy products. Profits from different methods of dairying. Finding profit or loss in animals and herds.

3. Soils.

Principles.—Origin and transportation of soils. Mechanical composition of soils. Plant food material in the soil (elements of fertility, fixation of plant food material). Humus. Relation of the plant to plant food material in the soil (available and unavailable fertility). Nitrification. Accretion of nitrogen through leguminous plants. Tilt arrangement of soil particles. Forms in which water exists in soils. Movement of water in soils. Movement of air in soils. Relation of the soil to heat.

Management.—Plowing; manner, time, depth, frequency, for what crops, etc. Sub-surface packing; description, time, when useful etc. Harrowing; methods, time, depth, frequency, etc. Cultivating; methods, time, depth, frequency, etc. Rolling and floating; methods, time, occasions. Crop rotations. Effect of grass crops. Use of barn-yard manure. Use of commercial fertilizers.

4. Field Crops.

Cereals.

Corn.—History and development of varieties, habits of growth, preparation of soil, planting, cultivating, harvesting, storing, improvement through seed selection, effect of environment, varieties adapted to different localities, disease, insect enemies.

Wheat.—Types, varieties, winter and spring, hard and soft, habit of growth, effect of environment, preparation of soil, planting, harrowing, harvesting, storing, improvement through seed selection, diseases, insect enemies.

Oats.—Varieties, habits of growth, effect of environment, improvement through seed selection, preparation of soil, planting, harvesting, diseases, insect enemies.

Barley.—Two and six rowed, varieties, uses, quality, planting, harvesting, insect enemies.

Rye, buckwheat.—Cultural methods.

Forage Crops.—Alfalfa, red clover, mammoth clover, white clover alsike clover, brome grass, meadow fescue, Kentucky blue grass, orchard grass, sorghum, millet, timothy.

Treat each as nearly as possible according to the following plan: History, effect of environment, varieties, habits of growth, seed, selection of soil, preparation of soil, planting, care of field, harvesting, storing seed raising.

5. Garden and Orchard Crops.

Location and site for gardens and orchards.

Elevation, aspect, soil, windbreaks, etc.

Laying out the grounds.

For fruit, vegetable and flower crops. For ornamental effects.

Propagation of plants.

By seeds—Stratifying, storing, scalding, soaking, planting seeds. Germination, seed testing. Preparing seed beds, cold frames, hotbeds, etc.

By separation—division, layerage—Bulbs, corms, tubers, suckers, stools, stolons, offsets, layers, etc.

By cuttings—Roots, tubers, leaves, growing stems, dormant stems, etc.

By graftage—Budding, inarching, root-grafting, top-grafting, preparation of grafting wax, etc.

Transplanting trees and plants—Digging, packing, unpacking, heeling-in, puddling, planting, pricking out, potting, shifting, etc.

Tillage of gardens and orchards—Cultivation, mulching, cover-crops, etc. Windbreaks.

Manures and fertilizers for horticultural crops.

Pruning and training—For growth and for fruit. Study of fruit buds. Treatment of wounds. Bush fruit, grapes, fruit trees, shade trees, shrubs, hedges, etc.

Protection of trees and plants against frost and freezing—Burying, mulching, wrapping, shading, whitewashing, etc. Foretelling frost. Relation of maturity to hardiness. Relation of soil moisture to winter injury.

Protection against insects, rodents, diseases, etc.

General types of injurious insects, diseases, etc. Preparation of spraying mixtures, use of spray pumps, etc.

Harvesting and storing fruit and vegetables.

Classification—Of shade trees, shrubs, hardy flowers, annual flowers, vegetables, fruits, etc.

Plant improvements—Variation and inheritance of plant characters. Hybridization. Selection, etc.

II. OUTLINE OF LABORATORY EXERCISES.

1. Farm Animals.

Eight practice periods at nearby stock farms one day each week. Judging by use of score cards typical specimens of draft horses, roadster horses, beef cattle, dairy cattle, sheep and swine.

2. Milk and Its Products.

Milk testing, exercise to find the per cent of fat in the whole milk by Babcock method.

Cream testing, exercise to find the per cent of fat in cream by a weighed eighteen gram sample, Babcock method.

Finding milk solids—Exercise to find the per cent of milk solids by the use of the Quevenne Lactometer and Babcock milk test.

Testing a separator, exercise to find the capacity of a separator and its ability to skim closely.

Testing herds, exercise to find the value of all animals in a herd by weighing and testing the milk of each.

3. Soils.

Microscopic examination of soils.

Soil as distinguished from pulverized rock.

Taking soil temperatures.

Effect of drainage on soil temperature.

Effect of soil drainage upon growth of plant.

Power of loose soil to retain water.

Power of compact soil to retain water.

Power of humus to retain water.

Rate of percolation of water through soils.

A study of the rise of capillary water in soils.

Effect of mulches on evaporation of water from soils.

Humus in soils.

A study of humus in the soil.

Effect of lime on clay soil.

Effect of alkali and acid on physical nature of soil.

Flocculation of clay.

Absorption of gases.

Effect upon plant growth of plant food material in soil.

4. Field Crops.

Corn.—Placing ears of corn in the order of their excellence in respect to (1) butts, (2) tips, (3) shape of ear, (4) market condition, (5) shape of kernels, (6) space between kernels. At least two varieties.

Judging exhibits of corn with score card. At least two varieties.

Grading samples of commercial grades of corn, as yellow corn,

Nos. 1, 2, 3; white corn, Nos. 1, 2, 3; mixed corn, Nos. 1, 2, 3, 4.

Testing samples for viability.

Study of structure of different types of corn, as pod, flint, flour, pop, sweet, dent.

Wheat.—Study of (1) hardness, (2) texture, (3) color, (4) size of kernel; in durum, northern spring, hard winter, red winter and white winter wheat.

Examination of heads of Polish, common and durum wheat and of emmer and einkorn.

Grading samples of hard winter wheat, Nos. 1, 2, 3, 4, and rejected; spring wheat, Nos. 1, 2, 3, 4, and rejected.

Oats.—Examination of heads of side oats, and open panicle oats.

Grading samples of white oats, Nos. 1, 2, 3 and 4; mixed oats, Nos. 1, 2, 3 and 4.

Barley.—Examination of heads of two-row and six-row barleys, hulled and hullless varieties, bleached and sprouted, as compared with sound and properly colored kernels.

Grass Seeds.—Identification of grass seeds and detection of adulteration.

Clover Seeds.—Identification of clover seeds.

Millet Seeds.—Identification of millet seeds.

5. Garden and Orchard Crops.

Drawing plan for the ornamental planting of the school ground or of the home grounds. Drawing plan for small orchard and garden.

Preparing hotbed and sowing vegetable seeds in it. Sowing vegetable and flower seeds in flats indoors. Preparing seed bed and sowing seeds in the school garden.

Seed testing. Stratifying peach pits. Scalding honey locust seeds.

Examining the bulbs of tiger lily, corms of gladiolus, tip-layers of black raspberry. Separating stools of canna and rhubarb.

Making and storing hard wood stem cutting of grape, willow and various hardy shrubs; root cutting of horse radish; leaf cuttings of bryophyllum; soft wood stem cutting (slips) of geranium, etc.

Preparing grafting wax. Making root-grafts of apple. Budding willow cuttings.

Transplanting trees, shrubs, and small plants.

Examining and using garden cultivators, mulching trees and plants.

Studying fruit buds.

Pruning trees, shrubs and small fruits.

Preparing Bordeaux mixture and kerosene emulsion.

Examining stored vegetables.

Identifying shade trees, evergreens, ornamental shrubs, etc., on school ground.

Studying variation in samples of beans and corn, studying crossed popcorn and sweet corn.

III. EQUIPMENT FOR LABORATORY WORK.

1. Farm Animals.

Score card, measuring tape, food samples.

2. Milk and Its Products.

One ten-bottle Babcock testing machine, hand power.

Two dozen whole milk test bottles.

One dozen cream bottles fifty per cent.

One-half dozen cream bottles thirty per cent.

Two double neck skim milk bottles.

One dozen acid measures 17.5 cc.

One dozen pipettes graduated for both 17.5 cc. and 18.0 cc.

One dozen big mouthed four-ounce sample bottles.

T beakers, 250 cc.

Two Quevenne Lactometers, with jars for same.

One pair of cream scales to weigh grams.

One pair of dividers.

One spring balance milk scales marked to pounds and tenths of pounds.

3. Soils.

Glass plates (window glass cut in four and eight-inch squares will do).

Two dozen glass slides for microscope, identical with botany apparatus.

One compound microscope, identical with botany apparatus.

Three hand lenses.

One iron mortar and pestle.

Two dozen flower pots, (tin cans may be substituted.)

Three thermometers, graduated to 100 degrees C.

Soil auger, two inches with thirty inch shank.

Five brass tubes or galvanized iron tubes, two inches in diameter, ten inches tall with perforated bottom one inch from end of tube.

Five brass or galvanized iron tubes, 15 inches tall, a perforated bottom one and one-half inches from end of tube, a solid bottom at end, an opening just above solid bottom fitted with one-fourth inch delivery tube; at the top, at right angles to delivery tube and one inch from top end, two one-fourth-inch delivery tubes placed opposite one another to allow water to flow across top of soil.

Five three-fourth-inch glass tubing, three or four feet long.

One frame to hold three tubes like above.

Five galvanized iron cylinders four inches in diameter, twenty-eight inches high, perforated two inches high around bottom, fitted with larger outside bottom for holding water about perforated end.

One porcelain crucible for igniting soils.

One dozen beakers.

One dozen four-ounce wide mouthed bottles.

One dozen eight-ounce wide mouthed bottles.

One graduate, 200 cc.

One solution balance, twenty kilo.

Soil, sand, gravel, loam, clay.

Fertilizers and chemicals; compost or well rotted manure, air slaked lime, common salt, sodium or potassium nitrate, sawdust, straw.

4. Field Crops.

Dent corn for placing and judging ears. Ten ears of two varieties for each pupil. Reid's Yellow Dent is recommended for one variety.

Commercial grades of corn in lots of one peck each; yellow corn, Nos. 1, 2, 3; white corn, Nos. 1, 2, 3; mixed corn, Nos. 1, 2, 3, 4.

Ears of pod, flint, flour, pop, sweet and dent corn.

Samples of threshed wheat, one-half peck lots of the following kinds: durum, northern spring, hard winter, white winter, red winter,

Samples of the following wheats in head, one for each pupil; Polish, common, durum, emmer and einkorn.

Commercial grades of wheat in lots of one peck each; hard winter, Nos. 1, 2, 3, 4, and rejected; spring wheat Nos. 1, 2, 3, 4, and rejected.

Samples of side oats and open panicle oats, one head for each pupil.

Commercial grades of oats in lots of one peck each; white oats Nos. 1, 2, 3, 4; mixed oats, Nos. 1, 2, 3, 4.

Samples of two-row and six-row barleys, one head for each pupil.

Samples of the following threshed barleys, in lots of one peck each; hulled, hulless, bleached, sprouted, sound and properly colored.

Samples of twelve kinds of grass seeds, preferably those used in the vicinity. Each pupil should have at least one hundred seeds of each kind; brome, timothy, Kentucky blue, orchard, meadow fescue, red top, rye, wheat, Johnson, tall meadow oat, sheep fescue, crested dog's tail, etc.

Samples of the same amounts of Japanese, German, Hungarian, Siberian and broom corn millets.

Samples of the same amounts of clover seeds of the following varieties; red, mammoth, white, alsike, sweet, crimson, yellow, burr, Bokhara, Japan, sanfoin.

Samples of common and Turkestan alfalfa seeds.

5. Garden and Orchard Crops.

School garden.

Fruits, vegetables and flowers.

Cellar storeroom, if possible.

Collection of seeds of vegetables, flowers and trees; apple stocks and scions for grafting; willow cuttings for budding; various bulbs, corms, tubers, etc.; vegetables for storing.

Collection of flower pots and shallow boxes (flats) for plants, seedlings, cuttings, etc.; earthen plates and blotting paper for seed testing; tin cups for making grafting wax; glass beakers or tumblers for mixing spray materials.

Garden loam, rotted sod, fine manure and sand for growing plants.

One pair pruning shears.

One saw.

Two grafting knives.

Twelve budding knives and razor strap.

Six dibbers.

Six hoes.

Six rakes.

One spade.

One shovel.

One garden line and reel.

One wheelhoe.

Materials for spray mixtures; one peck quicklime, five pounds copper sulphate, one pound Paris Green, soap, kerosene.

Materials for grafting wax; two pounds resin, one pound bees-wax, one pound tallow, wrapping card for budding, knitting cotton for grafting.

IV. REFERENCE BOOKS FOR LIBRARY.

1. Farm Animals.

New Elementary, by Bessey, Bruner & Swezey, University Publishing Co., Lincoln, Nebr.

Breeds of Live Stock, by Shaw. Orange Judd Co., Chicago, Ill.

Profitable Stock Feeding, by Smith. Author, Lincoln, Nebr., State University.

Judging Animals, by Craig. Renyon Printing Co., Des Moines, Iowa.

2. Milk and Its Products.

Principles and Practice of Butter Making by McKay & Larsen. John Wiley & Sons, N. Y. City.

Milk and Its Products, by Wing. Macmillan & Co., New York City.

Dairy Chemistry, by Snyder. Chem. Pub. Co., Easton, Pa.

The Principles of Modern Dairy Practice, by Wool. John Wiley & Sons, New York City.

3. Soils.

Soils and Fertilizers, by H. Snyder. Chem. Pub. Co., Easton, Pa.

Physics of Agriculture, by F. H. King, Author, Madison, Wis.

Agricultural Bacteriology, by H. W. Conn. P. Blakiston's Son & Co., Philadelphia, Pa.

Principles of Agriculture, by L. H. Bailey. Macmillan Co., N. Y. City.

4. Field Crops.

The Cereals in America, by T. F. Hunt. Orange Judd Co., Chicago, Illinois.

Grasses of the United States, by W. J. Spillman. Orange Judd Co., Chicago, Ill.

Examining and Grading Grains, by Lyon & Montgomery. Authors, Lincoln, Nebr., State University.

5. Garden and Orchard Crops.

Principles of Plant Culture, by Goff. Orange Judd Co., Chicago, Illinois.

Garden Making, by Bailey, Macmillan Co., New York City.

The Nursery Book, by Bailey. Macmillan Co., New York City.

6. General Books.

Farmer's Bulletins. U. S. Dept. of Agriculture, Washington, D. C.

Committee—T. L. Lyon, chairman, University of Nebraska; Lawrence Bruner, University of Nebraska; A. E. Davisson, University of Nebraska; R. A. Emerson, University of Nebraska; A. L. Haecker, University of Nebraska; H. R. Smith, University of Nebraska; F. D. Heald, University of Nebraska, E. C. Bishop, State Deputy Supt. of Public Instruction; W. L. French, State Normal at Peru.

ONE SEMESTER COURSE.

After conference with some of the best school men, we are convinced that but few high schools in Nebraska are at present, properly equipped to carry the two semester course in agriculture. For such as can carry the two semester course, the full course as outlined by the committee is recommended. For high schools whose equipment will not justify them in attempting the two semester course, a one semester course adapted by the Department of Public Instruction from the two semester course is here given.

The outline of this course is the same as that for the two semester course given above, except as herein noted.

	Class Work Number of Periods.	Laboratory Work Number of Double Periods.
One semester.		
I. Farm animals.....	10	3
II. Milk and its products.....	5	5
III. Soils.....	12	8
IV. Field Crops.....	9	6
V. Orchard and Garden Crops....	18	12
	<hr/>	<hr/>
Total	54	34

I. OUTLINE OF CLASS EXERCISES.

1. Farm Animals. Follow two semester course outline, except in the study of the different breeds of horses, cattle, sheep, swine, and poultry. Here study only the principle and most common breeds in each division.

2. Milk and its products. Follow outline.

3. Soils. Follow outline.

4. Field Crops. Cereals. Follow outline. Emphasize especially corn, wheat, and forage crops, treating oats, barley, rye, and buckwheat only in general.

5. Garden and Orchard Crops. Follow outline.

II. OUTLINE OF LABORATORY EXERCISES. Three practice periods.

1. Farm Animals. At nearby stock farm, one day each week, judge by use of score cards. These periods may be used in any one of the three ways indicated below:

A. Devote one period to the study of typical specimens of

draft horses, one period to roadster horses, and one period to either beef cattle or dairy cattle.

B. Devote one period to the study of typical beef cattle, one period to dairy cattle, and one period to either draft or roadster horses.

C. One period to the study of either typical draft or roadster horses, one period to either beef or dairy cattle, and one period to either sheep or swine.

2. Milk and its products. One period to each of the five laboratory exercises as given in the outline.

3. Soils. From the outline, choose such experiments as can be successfully handled in eight periods.

4. Field Crops. Follow outline as given for corn and wheat. If time allows, a brief study of grass seeds and clover seeds may be given.

5. Garden and Orchard Crops. Follow outline.

III. EQUIPMENT FOR LABORATORY WORK. Equipment is same as given in outline, except under 4, Field Crops, only samples of field crops studied are necessary.

IV. REFERENCE BOOKS and LIBRARY EQUIPMENT as given in outline.

ESTIMATE OF COST OF LABORATORY EQUIPMENT IN SOILS.

Alvin Keyser. Agricultural Experiment Station, U. of N.

Under the subject of Agriculture in this bulletin, a list of apparatus is given as follows:

Glass plate (window glass cut in four and eight-inch squares will do).

Two dozen glass slides (identical with botany apparatus).

One compound microscope (Identical with botany apparatus).

Three hand lenses.

These four items are probably already at hand and it is not likely they will have to be supplied specially for this work. The rest of the apparatus in the list, with approximate cost, is about as follows:

One iron mortar and pestle, at \$1.00.

Two dozen flower pots, at \$0.75 - \$1.50 (tin fruit cans may be used instead of flower pots in the experiment successfully).

Three thermometers, graduated to 100 degrees C., at \$1.00 - \$3.00.

Soil auger, 1½ with forty-two inch shank, about \$2.00. Five brass or galvanized iron tubes, two inches in diameter, ten inches tall with perforated bottom one inch from end of tube. The brass tubes would cost about \$1.00 to \$1.50 each. The galvanized iron tubes can be made at the local hardware for about \$0.40.

Five brass or galvanized iron tubes, fifteen inches tall, a perforated bottom one and one-half inches from end of tube, a solid bot-

tom at end, an opening just above solid bottom fitted with one-fourth inch delivery tube; at the top, at right angles with delivery tube and one inch from top end, two one-fourth inch delivery tubes placed opposite one another to allow water to flow across top of soil.

I would recommend the galvanized iron tubes for this purpose. They would cost about \$0.75 each. For work in the High Schools I think these tubes can be dispensed with and the experiment performed with simpler apparatus which is cheaper and illustrates the principle just as well as the use of these tubes. In my own laboratory I am using student lamp chimneys for this purpose. These chimneys cost me \$0.90 per dozen in Lincoln. The manner of using this sort of apparatus for the experiment is well illustrated in the exercises on soils given in Bulletin 186 of the Office of Experiment Stations. Exercise 31 on page 46 of that Bulletin.

The glass tubing which is the next item mentioned can be dispensed with if the lamp chimneys are used for the experiment performed by the two previous pieces of apparatus. The frames to hold the lamp chimneys or glass tubes can be made by any local carpenter or a handy student and probably cost \$0.75.

The next item on the list, 5 galvanized iron cylinders twenty-eight inches high and four inches in diameter would probably cost about \$1.50 each. I would recommend in their stead, galvanized pails which can be bought of the local hardware and will answer the purpose just as well.

One porcelain crucible for igniting soils. I would recommend instead of a porcelain crucible a so called spun iron crucible which would cost about \$0.25.

One dozen beakers about \$3.00.

One dozen four-ounce wide mouthed bottles, about \$0.50.

One dozen eight-ounce wide mouthed bottles, about \$0.60.

One graduate, 200cc., about \$1.50.

One solution balance, twenty kilo, at \$20.00.

The soil, sand, gravel, loam, clay, etc., can usually be gathered from land near the school. The fertilizers and chemicals; compost or well rotted manure, can be bought in the quantities necessary for laboratory use, at the local drug store and any bright active boy can obtain a supply of the compost or well rotted manure. Slaked lime can be obtained from the local building material dealer. The sawdust and straw can be obtained without difficulty.

Although I was not a member of the committee that drafted this course of study, I did prepare the course in soils at Dr. Lyon's request, and since preparing the outline I have given considerable thought to the method of teaching soils in the High Schools. I am convinced that the simpler the apparatus and the more evident the demonstration

the greater the interest in the subject and the more thoro the results obtained.

All the exercises given may be performed with apparatus and material which can commonly be obtained from local sources. For instance; take the experiment entitled "Power of loose soils to retain water." The experiment could be performed with a considerable degree of accuracy by placing a given quantity (volume) of loose soil in a student lamp chimney or glass tube having a cloth strip over the lower end. A measured quantity of water is added until percolation commences at the lower end. The water which drains off is collected and measured. The difference between the amount of water added and the amount drained off represents the amount of water which the soil is capable of retaining. This illustrates in one specific case what can be done in these exercises by the use of simple apparatus and material.

My suggestion would be that they be used instead of obtaining the more costly, if somewhat more accurate, apparatus.

PROFESSIONAL TRAINING.

GENERAL SUGGESTIONS.

Owing to the age and preparation of the students, the purpose of the instruction, and the limited amount of time to be devoted to the study it was thought best to confine the work to a few lines in which the teaching can be made most concrete and practical. For these reasons it is advised that no attempt be made to teach technical pedagogy, psychology, history of education, and other subjects belonging to the more comprehensive work of the normal school and university. The subjects considered most appropriate under the circumstances are:

1. A course (30 lessons) in the Theory and Practice of teaching including a brief outline of the fundamental principles of elementary education.

2. A course (30 lessons) in method of instruction and district school organization and management.

3. At least twenty-six observation lessons under grade teachers and three to five practice lessons with high school classes in which the pupil teacher teaches all or part of the period of a class of which he is a regular member, or in lieu of the latter actual teaching in the grades under direct supervision. All observation and practice lessons should be carefully planned, reviewed and discussed. The teachers giving the lessons should meet subsequently with the observers in order to aid in the study of the aim and various facts of the lesson.

The pedagogical instruction should be given in classes especially organized for that object, membership being restricted to those having serious purposes of fitting themselves for teaching in the grades and country schools. In order to give clearer direction to the work

different members of the committee were asked to make brief suggestive outlines of different phases of the work. Dr. W. A. Clark outlining Course 1, on theory and principles; Professor W. R. Hart, Course 2 on methods and management; and Professor W. R. Jackson the course on observation lessons. The outlines are intended only to be suggestive and must be enlarged and filled in by the teacher. Dr. Clark has outlined only the last half of Course 1. It should be preceded by the first 133 pages of White's, *The Art of Teaching*; or some other good book as Roark's *Method in Education*; Page's *Theory and Practice of Teaching*; Parker's *Talks on Teaching*; DeGarmo's *Essentials of Method*; Hinsdale's *The Art of Study*; McMurtry's *The Method of the Recitation*; Arnold's *Waymarks for Teachers*; Putnam's *Manual of Pedagogics*, etc.

The committee is of the opinion that the pedagogical work herein outlined should cover at least five recitations per week for one half year, or preferably Course 1 two hours per week the first semester, followed by courses 2 and 3 at least three hours per week (three recitations) the second semester of the last year of the high school course.

The process of teaching an individual how to teach is far more difficult than the ordinary process of instruction and requires scientific as well as experiential knowledge. To assign this work to a tyro means to invite failure from the beginning. The teachers of this subject should have had actual experience in the fields in which these pupil teachers are preparing to enter and should have supplemented their experiential knowledge by scientific study of the subjects they are to teach. Anything short of this should be discouraged by everyone interested in the advancement of education.

It is not intended that this course of professional study should be accepted in any sense of permanency. It has seemed to the committee the best for the present but it should be modified as time and conditions show need of change.

TEACHER'S LIBRARY.

There should be a teacher's library in every high school offering this normal instruction of not less than twenty books such as:

- Talks on Pedagogics*, F. W. Parker, E. L. Kellogg & Co.
- Manual of Pedagogics*, D. Putnam, Silver, Burdett & Co.
- The Art of Study*, B. A. Hinsdale, American Book Co.
- The Art of Teaching*; *The Elements of Pedagogy*; and *School Management*; E. E. White, American Book Co.
- Waymarks for Teachers*, Sarah Louise Arnold, Silver, Burdett & Co.
- Theory and Practice of Teaching*, D. Page, American Book Co.
- Method in Education*, Ruric N. Roark, American Book Co.
- Methods of Teaching*; and *School Management*, A. N. Raub, J. M. Stradling & Co.

- Common Sense in Education and Teaching, P. A. Barnett, Longmans, Green & Co.
- The School and Society, J. Dewey, McClure, Phillips & Co.
- The Art of School Management, J. Baldwin, D. Appleton & Co.
- School Supervision, J. L. Pickard, D. Appleton & Co.
- School Supervision, W. H. Payne, American Book Co.
- The Art of Teaching, John Ogden, American Book Co.
- School Management and Methods of Instruction, George Collar and Chas. W. Crook, Macmillan Co.
- Great American Educators, A. E. Winship, American Book Co.
- Educational Reformers, H. Quick, D. Appleton & Co.
- The Best Methods of Teaching in Country Schools, G. Dallas Lind, Hinds, Noble & Eldredge.
- Common Sense Didactics, Henry Sabin, Rand McNally & Co.
- The Making of a Teacher, Martin C. Brumbaugh, Sunday School Times Co.
- The Essentials of Method, Chas. DeGarmo, D. C. Heath & Co.
- The Method of Education, Chas. and Frank McMurray, Macmillan Co.
- The Educative Process, W. G. Bagley.
- The Theory of Teaching, Albert Salisbury, Century Pub. Co.

OUTLINES OF SPECIAL TOPICS, COURSE 1.

Theory and Principles of Education.

Suggested details of instruction:

Fifteen lessons in Methods of Teaching, based upon White's "Elements of Pedagogy," pages 133 to 310.

1. Preliminary study of definitions, pp. 133-138, two lessons.
2. General methods of teaching process, pp. 138-139, one lesson.
3. The process of instruction, pp. 140-144, one lesson.
4. The nature and value of drill, pp. 144-146, one lesson.
5. Examinations and tests, pp. 147-148 and 193-209, three lessons.
6. Text-books and oral teaching, pp. 149-163, two lessons.
7. The recitation—design and conduct of, pp. 173-192, three lessons.
8. Assigning the lesson, pp. 166-172, one lesson.
9. School Incentives, a critical study, pp. 320-327, one lesson.

This work should be preceded by fifteen lessons from some good text-book on the theory and principles of education as indicated under General Suggestions.



NORMAL TRAINING CLASS, BEATRICE HIGH SCHOOL, 1907





NORMAL TRAINING CLASS, OAKLAND HIGH SCHOOL, 1907

COURSE 2.

Methods of Instruction and Management.

I. THE TEACHING OF PRIMARY READING.

- a. Aim of the study.
- b. Purpose of the recitation.
- c. Methods of assigning lessons and conducting recitations.
- d. If the method of the primary is based on form, bring out the manner of passing from the study of the forms of words to content.

II. READING IN THE THIRD GRADE AND ABOVE.

- a. Aim of the study.
- b. Method of the recitation.
- c. Nature and amount of help and preparation.
- d. Bring out reason for change in method, if any.

III. PRIMARY LANGUAGE LESSONS.

- a. Ends to be reached.
- b. Material to be used as a basis.
- c. Methods.
- d. Oral lessons.
- e. Written lessons.

IV. THE TEACHING OF GRAMMAR.

- a. Relation of grammar to reading, to language.
- b. Aim of study.
- c. Methods and principles of teaching.

V. THE TEACHING OF GEOGRAPHY.

- a. Aims.
- b. Means.
- c. Methods of study, of recitation.

VI. THE TEACHING OF ARITHMETIC.

- a. Nature of computing compared with analysis.
- b. Number work as related to memory.
- c. Analysis as related to imagination and reason.
- d. Methods.

VII. THE TEACHING OF U. S. HISTORY.

- a. Biography.
- b. Fiction based on history.
- c. Records of events.
- d. Methods of study.
- e. Methods of reciting.

VIII. REVIEWS, TESTS AND EXAMINATIONS.

- a. Purpose of.
- b. Scope of.
- c. Character of.

As this lesson covers the same ground as lesson 5 in

Course I, it is suggested that it be omitted and that a lesson in primary reading, language or arithmetic be substituted.

IX. SCHOOL VIRTUES AND MORAL INSTRUCTION.

- a. Promptness.
- b. Regularity.
- c. Industry.
- d. Truthfulness.
- e. Neatness.
- f. Accuracy.
- g. Politeness.
- h. Obedience.

(This list is only suggestive, not exhaustive).

X. SCHOOL VICES AND DISCIPLINE.

- a. The opposites of the above list.
- b. Whispering.
- c. Talebearing.
- d. Stealing.

XI. GOVERNMENT.

- a. Aim of punishment.
- b. Kinds of punishment.
- c. Government by incentives.
- d. Appeals to honor, self respect, etc.

XII. BEGINNING TO TEACH.

- a. Making a contract and what it means.
- b. What to learn of the school before the first day.
- c. What to do the first day.

XIII. CARE OF PROPERTY.

- a. Text-books, building and its decoration, public library, school grounds.

XIV. TEACHER'S PREPARATION AND QUALITIES.

- a. Acquired knowledge.
- b. Bodily health.
- c. Moral habits.
- d. Disposition and temperament.
- e. Attitude of teacher towards non-school interests.

XV. REVIEW POINTS OF INTEREST NOT FULLY BROUGHT OUT IN THE PREVIOUS LESSON.

Note.

The foregoing outline of work in Methods of Instruction and Management is based on Levi Seeley's New School Management and E. E. White's Art of Teaching. The subordinate points in the outline are suggestive only. They are not intended to restrict the teacher, nor is it intended that all sub-topics should be exhausted. The lesson titles, however, are considered sufficiently vital in their aim as to be

deemed a fair working basis for those having charge of this work, to approach a desirable uniformity in the amount and kind of work given in different schools.

The order in which the lessons are taken up is a matter for each teacher to settle. The following suggestion is offered:

So far as possible a good arrangement would be to study the lesson in method in connection with the Common Branch which is being reviewed, or which the class has an opportunity of observing in the grades. The lessons in management should be grouped if possible.

The lesson on the teacher should come late in the course.

COURSE 3.

Observation Lessons.

OUTLINE FOR DISCUSSION.

The following outline is used in the discussion of each lesson taught. It is to be worked out in a series of preliminary discussions before any lesson is presented. As great stress is placed on the discussion as on the lesson itself, the lesson may take twenty minutes and at first the discussion may take three periods of forty-five minutes. Without discussion, the lesson is of very little value.

These lessons are merely suggestive and are not to be slavishly followed. The teacher must have had special training and must have originality or the work will be a farce.

These lessons are but twenty-five out of about 170 well correlated lessons that would be presented in a thorough normal school; hence it will be seen that there cannot be the unity or continuity that might be desired.

I. AIM.

- a. What was it?
- b. Was it carried out?

II. SUBJECT MATTER.

- a. What was it?
- b. Was it adapted to pupils?
- c. Was it logical?
- d. Was it definite?
- e. Was it sufficient?
- f. Was it comprehensive?

III. PRESENTATION.

- a. Text book.
 1. Was it a quiz, or was it an explanation?
- b. Lecture, drill, or review?
 1. How was it conducted?
 2. Was it mere repetition or was it by comparison?
 3. How might it have been conducted?

IV. DEVELOPMENT.

- a. Preparation.

- b. Presentation.
- c. Comparison.
- d. Generalization.
- e. Application.

V. ASSIGNMENT.

- a. What was its object?
- b. Was it an opportunity to rethink old knowledge or was it for gaining new knowledge?

VI. CO-OPERATION.

- a. Was it secured and how?
- b. Was it through friendship and sympathy?
- c. Was it through personality of teacher?
- d. Was it through interest in subject?
- e. Was it through interest in device?
- f. Was it through rivalry?
- g. Was it through fear of staying after school?
- h. Was it through fear of reprimand?
- i. Was it through fear of lowering grade?
- j. Were all given an opportunity for thought before one was called upon to voice it, or was but one given the opportunity to think the answer?
- k. Was system of hand raising such that the teacher knew the thought of each pupil on the question?

VII. A STUDY OF INDIVIDUAL CHILDREN.

- a. What pupils got the work?
- b. What pupils failed to get the work?
- c. Was failure through lack of sufficient power to grasp the subject, through lack of interest, through lack of knowledge, or on account of physical defect?
- d. What was done to correct the wrong habits or traits, as selfishness, timidity, conceit, etc.?
- e. What was done to encourage good habits?

Suggestive Lessons for Observation.

Lesson I.

The following is suggested as one of the lessons that might be given as one of the first lessons in reading, using "Action" as a basis:

Teacher—I am going to tell Mary to do something, and I wonder if you can guess what I say. (Teacher whispers, "You may run".) Perhaps you can tell the exact words I said to Mary?

Child—You may run.

Teacher—I will say to you, without saying it in words, exactly what I said to her. How do you think I will say it? Yes, I will write it on the board. (Teacher writes—You may run). Drill by whispering to other pupils and writing sentences.

Teacher—I am going to tell someone else to do something (Whis-

pers to another child. "You may jump.") (The child performs the action). I will tell you on the board what I said to her. (Writes "You may jump.") Present "You may fly" in the same way.

Drill by writing different sentences and having the acts performed or sentences read, or child whispering to teacher to write any one of the three sentences which he may choose to have acted.

Lesson II.

After the children have been in school a few weeks, the following lesson might be given:

A drill of the old words might be given first: See, I, pretty, jump, can, run, like, apple, peach, plum.

Teacher points to the object and the child finds the word.

Teacher points to the word and the child finds the object, or, if action word, performs the action.

Subject-Matter.

Kitty-kitty-kitty. My kitty is pretty. My kitty can jump. My kitty can run. I like my kitty. Run, pretty kitty. (The following introduction might be given to this lesson): One day I went to the barn and there in a corner I found something in a basket. It was just this big. (Teacher shows with hands.) It was all covered with fur. I took it out. It said "Mew,mew." What do you suppose it was? After I went to the house I called to my kitty. What do you suppose I said. (Children say first sentence. Teacher writes first sentence.) Perhaps you have a kitty at home. If so, tell us something about yours. (Children say, My kitty is pretty.) Teacher writes the sentence, pointing to the word "my" saying this is "my". If this is true of your kitty, you may tell me of yours. Teacher—Tell me something your kitty can do. Children—My kitty can jump. (Teacher writes third sentence.) What is it this sentence says? Whisper to me something your kitty can do. (Teacher writes on the board fourth sentence.) Here is something I thought about your kitty. (Teacher writes fifth sentence.) If this is true tell it to me. We have some new words. What are they? "My" and "kitty." Have drill on the new words and the old ones that bothered.

Lesson III. Lesson in Phonetics.

After the children have been in school a few weeks begin work by long pronunciation. Bring me the b-e-l-l. You may r-u-n. When the child is proficient in this, take words known by sight and have pupils pronounce by long pronunciation. As the child makes the sound the teacher writes the letter having the sound. Take the letters from the word and write on one side of the board for drill later in the work. Take phonograms learned, as: one, an, it, ite, etc. Take list of words not known by the child, as: it, fan, cane, bite, etc., and have the pupils study out the word by first giving the sound of "it" and then the sound of "b". Next blend the sounds rapidly giving the word. Do the same with all the list of words.

LESSON IV. Same class as in Lesson II. Show how to change from script to print in reading.

LESSON V. Third grade reading lesson. Show the introduction, how to gain the thought and feeling, work in voice, force, emphasis, inflection.

LESSON VI. Show how to dramatize old subject matter and new subject matter.

LESSON VII. Show how thought and feeling may be worked out by busy work, such as clay moulding, paper cutting, stick laying, etc.

LESSON VIII. An advanced grade reading lesson. Bring out the same as in Lesson V.

LESSON IX. Lesson in first grade numbers, to show values and notation of same.

LESSON X. Second grade. Develop combinations. Drill on addition, etc., tables.

LESSON XI. Lesson to third grade in bundling to show how to present addition, subtraction, multiplication or division.

LESSON XII. In the fourth grade. Develop addition of fractions objectively as on page 14, "Method of Recitation."

LESSON XIII. Develop decimals to sixth grade.

LESSON XIV. Develop lesson in percentage to seventh grade.

LESSON XV. First grade spelling, showing manner of presentation and drill.

LESSON XVI. Advanced grade in spelling showing manner of presentation, use of dictionary, etc.

LESSON XVII. Third grade, show the study of pictures preparatory to written lesson. Show how to arouse thought and to make composition logical, etc.

LESSON XVIII. In the fourth grade a study of a selection by interpretation. (Page 57, "Lessons in English," by Skinner).

LESSON XIX. Lesson on letter writing to the fourth grade.

LESSON XX. Lesson showing how to write original stories.

LESSON XXI. Lessons in nature study, specimen present showing how to present this work to cultivate observation. (Page 86, Special Method in Science, McMurry).

LESSON XXII. One field lesson showing how to teach physical features in geography. (Page 200, Waymarks for Teachers, Arnold).

LESSON XXIII. One lesson in map drawing and map reading.

LESSON XXIV. Lesson in fifth grade geography based on relief and position of continent, showing from these how to deduce climate, productions and industries, etc.

LESSON XXV. Lesson showing how to present a lesson in

travel, in any grade.

Committee:

G. W. A. Luckey, University of Nebraska,
W. A. Clark, State Normal School, Kearney,
W. R. Hart, State Normal School, Peru,
W. R. Jackson, Nebraska Wesleyan University.

C ADDITIONAL LIST OF BOOKS FOR PROFESSIONAL TRAINING.

We are pleased to include here an additional list of books on professional training recommended by Charlotte Templeton, Secretary of the Nebraska Library Commission.

	List Price
Adler, Felix, Moral Instruction of Children.....	Appleton \$ 1 50
Arnold, S. L. Reading: How to Teach It.....	Silver Burdett 1 00
Bagley, W. G. Educative Process.....	Macmillan 1 25
Bryant, S. C. How to Tell Stories to Children.....	Houghton 1 00
Burrage & Bailey. School Sanitation and Decoration	Heath 1 50
Call, A. P. Power Through Repose. New ed.....	Little 1 00
Chubb, Percival. Teaching of English in the Ele- mentary and Secondary School.....	Macmillan 1 00
Clark, S. H. How to Teach Reading in Public Schools.	Scott 1 00
DeGarmo. Interest and Education	Macmillan 1 00
Dewey, John. School and Society.....	McClure 1 00
Froebel, F. Education of Man.....	Appleton 1 50
Hanus, P. H. A Modern School.....	Macmillan 1 25
Henderson, C. H. Education and the Larger Life...	Houghton 1 30
Hodge, C. F. Nature Study and Life.....	Ginn 1 50
James, William. Talks to Teachers on Psychology..	Holt 1 50
Kern, O. J. Among Country Schools	Ginn 1 25
McMurry, C. A. Elements of General Method.....	Macmillan 90
McMurry & McMurry. Method of the Recitation...	Macmillan 90
McMurry, C. A. Special Method in Geography from 3 and 8 Grades	Macmillan 70
Salisbury, Albert. Theory of Teaching.....	Century 1 22
Shaw, E. R. School Hygiene.....	Macmillan 1 00
Sherman & Reed. The Essentials of Teaching Reading	Uni. Pub. Co. 1 15
Wray, A. Jean Mitchell's School.....	Pub. Sch. Pub. Co. 1 00

SUGGESTED PLAN FOR OBSERVATION WORK.

REVIEW SUBJECTS AND AMERICAN HISTORY.

It is conceded that observation work must have an important place in the professional training which is to be given to the students

in the normal training course of our high schools. The question has been raised by many superintendents as to when this observation work can be done the most profitably. In answer to this question the following plan is suggested:

The class entering upon a review of reading, for example, pursues the academic work for a period of two weeks and two days. On Wednesday of the third week, the teacher lectures on the art of teaching reading in the primary grades. On Thursday the student-teachers observe the teaching of reading in the primary grades, taking notes for discussion the following day in accordance with the outline given under the head of the professional training in this bulletin. On Friday the observation lesson of the previous day is discussed.

During the fourth and fifth weeks and Monday and Tuesday of the sixth week the work to be purely academic. On Wednesday of the sixth week the teacher lectures on the teaching of reading in the intermediate grades. On Thursday the class observes the teaching of reading in the intermediate grades, taking notes. On Friday the observation lesson of the previous day is discussed.

During the seventh and eighth weeks and Monday and Tuesday of the ninth week the work again is purely academic. On Wednesday of the ninth week the teacher lectures on the art of teaching reading in the grammar grades. On Thursday the student-teachers observe the teaching of reading in the grammar grades, and on Friday the observation lesson of the previous day is discussed.

This plan may be successfully adapted to the review of arithmetic, geography and grammar, and to the study of American History. If the work is pursued in accordance with this plan, it seems to me the student-teacher may reasonably be expected to make a good showing in the final examination on these subjects, in which at least three of the questions are based on the teaching phase of the subject. Schools giving more than nine weeks to the review subjects may use this plan by giving the same proportionate amount of time to lectures, observation work, and discussions.

It must be understood that the time devoted to the professional study of the review subjects and to American history is not to be deducted from the required seventy-two periods of pedagogy (professional training), except that for each review subject carried twelve or more weeks in the twelfth grade, or for American history carried twenty-four or more weeks in the twelfth grade, a credit of eight periods in pedagogy (professional training) will be given.

I. A. DOWNEY,

Inspector.

Addresses, Papers and Discussions

On

Normal Training in High Schools

And

Other Matters of Educational Interest

To

Teachers and Prospective Teachers

Normal Training in High Schools

Superintendent R. H. Graham, Wymore.

The superiority of the modern Normal schools over those founded in early times, or other educational institutions for the instruction and training of teachers, must rest after a reasonable degree of scholarship upon the practice or training school idea. Eliminate this feature and you may have a school or college of pedagogy, but not a teachers' normal school. We would repeat that preceding the normal training of all teachers, there must be a requirement for a reasonable scholarship upon the practice or training school idea. Eliminate this feature a brief investigation of the courses of study in those institutions which issue two year permits in Nebraska, we would suggest that this requirement for scholarship had better be increased than remain at the present maximum requirement. Only a few years experience in the position of superintendent or principal, impresses one with the fact that scholarship on the part of teachers covers a multitude of weak points.

Our Peru State Normal does not admit pupils to the training or practice year until they have had two or more years work in a good high school. This means that the candidate must have pursued studies covering at least fifteen points credit found in the average high school. In addition to these fifteen points credit, the pupils are given a review in eight of the common branches, but the work in four of these eight studies, is credited by the University and Colleges of Nebraska when pursued in high schools. This makes a maximum amount of thirteen points credit outside of the common branches as a basis for granting a two year permit to teach, or a sum total of not to exceed eighteen high school credits. In addition to this, the above mentioned school requires five hours recitation work per week in the observation and training school for thirty-six weeks. It is to be noted that the student teachers at this state institution have for preparation sixteen lessons per week, and twenty-one hours recitation, five of which is practice or observation work.

One of the sectarian colleges of Nebraska requires eleven points of high school work, and four additional points, two in botany and two in physics, being optional, and reviews in six of the common

*Paper read by R. H. Graham, of the Wymore city schools at the Southeastern Nebraska Educational Association at Beatrice, April, 1906.

branches for a two year certificate. This school issues these two year permits on a minimum of twelve points of high school work, and the above mentioned reviews, together with practice teaching and criticism five hours a week for thirty-six weeks. Students in this course have eighteen hours preparation per week. It is to be noted that pupils completing the common school course from the eighth grade can enter this course; a more lenient requirement than is offered at the Peru State Normal.

In two of the private normals of Nebraska, pupils from the eighth grade may enter what they call their "Two Year State Certificate Course." In these two year courses, one gives twelve and the other thirteen points that are the equivalent of high school credits recognized by higher institutions. In addition they give agriculture and reviews in eight of the common branches. The reviews in mental and written arithmetic are repeated for two terms. In one of these normals, pupils are permitted to carry twenty-seven hours per week besides two hours per week in physical culture.

This brief review of the courses of study in those institutions issuing two-year certificates reveals the fact that these two-year permits, up to the present year at least, are based on scholarship ranging from two to three years' work in accredited high schools of Nebraska. None of these institutions require practice teaching and criticism to exceed five hours per week for thirty-six weeks. Please remember that reference to the scholarship obtained has to do with the two year permits or certificates, and not life certificates.

Can the four year high schools throughout the state meet the above requirements, first in scholarship? And if they can meet the requirements, do conditions throughout the state justify a course in Normal Training in those institutions having a full four years high school course?

As previously stated the scholarship of a teacher will in many emergencies cover a multitude of weaknesses. Mind, matter and method are factors with which educational thought has to do; yet method without a mind well trained in systematizing and differentiating the matter at its command is like a ship without a rudder. So the query, can our four year high school graduates with from twenty-five to forty per cent more scholarship than those meeting the requirements for a two year certificate, and then with from eighteen to thirty-six weeks study in methods, as well as practice teaching given by experienced and well-qualified high school teachers as required by the new law going into effect in 1907—can our graduates with this scholarship and training, on writing the examination—be granted a certificate to teach in our rural schools?

The recommendation made by our State Superintendent in conjunction with a committee appointed by him, was certainly conserva-



tive in limiting Normal Training to those schools carrying a full four years course, and employing three regular teachers or instructors besides the Superintendent. By inquiry, it is ascertained that these four year schools graduate pupils on a basis of from twenty-six to thirty University credits, and with from two to four points high school credits, the latter being based on a review of the common branches. Now with five hours per week devoted to a study of methods in the various branches as they are reviewed, and observation work in the grade departments and some practice teaching, we venture the assertion that these graduates will be equal in equipment to those holding two year permits. Remember that with equal or better scholarship, the step toward high school Normal Training does not ask that such pupils be given a two year permit, or be exempt from examination but that on evidence of a minimum amount of professional work being completed, the plan proposed does ask that these student teachers be allowed to take an examination, and let the results of that examination be the best evidence of their fitness to teach.

The question has been raised that the time required to do this professional work will not permit the completion of as many University credits as has been mentioned above and as is now completed by the average four year high school. This may be true of those taking Normal Training, but it need not be true of those who contemplate entering a college or university. Those not desiring to teach need not take the Normal Training, but can continue the regular college accredited course. It can be said with equal emphasis, that those who cannot take up a regular college course and whose school life must end on their high school graduation, that they can take up Normal Training, or substitute ten hours work per week of this training instead of those subjects that especially prepare for college, and in the end are infinitely better prepared to teach than if they had adhered strictly to the college accredited course. And in the event of substituting Normal Training to the extent of ten hours per week in their senior year, these student teachers will lose not to exceed four college credits, and their work in the History of Education, elementary Mental science, and a study of methods, will largely compensate for the omission of Vergil, Chemistry, or some other subject that prepares for college entrance only. So the "stock-in-trade" argument that our high school course will be weakened in that we cannot as adequately prepare those desiring to enter college is not well taken. The plan will only help to enrich, broaden, and differentiate our courses of study to suit and meet the demands of individual students. It is time that our high schools were so differentiating their work that they may give some preparation to those who are compelled to earn a living on leaving their home school, as well as manifest solicitude for those who are financially able to enter college. If a high school devotes one-eighth

of its efforts only, to a utilitarian purpose, and that by training pupils to teach, it is by no means a sign of deterioration in ideals or standards.

The spirit of the new law requiring that all candidates to teach have a minimum amount of Professional Training, is to raise the standard of teachers' qualifications in the rural schools. The plan of permitting the high schools of a certain standard, to do this work, will assist in bringing about the desired result. In as much as Normal Training is limited to those pupils of the twelfth grade, none but graduates will go directly from the high schools to teach. In previous years, pupils have discontinued their work in the tenth and eleventh grades, have obtained a third grade, and in many instances a second grade certificate to begin teaching. According to the recommendation of the committee none but those in the graduating year of a four year high school course shall receive credit for Normal Training.

By a circular letter to County Superintendents in middle and western Nebraska, it was ascertained that four-fifths of the rural teachers enter their work of teaching on graduation from some one of the town schools of their county. And of these four-fifths, many are graduates from a three year, and some from a two year high school course. It is this condition that the new law seeks to remedy. By its provisions eight weeks Normal training is necessary to obtain a second grade certificate, and twelve weeks is the requirement for a first grade certificate. But Normal training is restricted to four year high schools, and only the graduates of these are given credit for the professional work done. So unless pupils from a three year course of study or less attend some one of the Normals for the minimum time mentioned above, they will be excluded from entering the work of teaching. Thus the proposed plan will in a measure meet the demand for better trained teachers in our rural schools. At the same time it will tend to hold in school until they graduate, those who never expect to do any more than meet the minimum requirements.

One question asked in a circular letter to city superintendents was, do you consider the opportunities for observation work as good in your grade departments as in a Normal School. Of the fifteen answering, all were of the opinion that the opportunities for observing organization and discipline were much better in a real school than in a practice school. One superintendent gave the following reasons: because the student teachers can see all the grades at work; conditions are normal as they are those of a real and not an ideal school; the pupils do not know that they are being inspected; the teachers know the student teachers and can give them many valuable suggestions on organization and discipline.



NORMAL TRAINING CLASS, HOLDREGE HIGH SCHOOL, 1907

Photo by Fisher



NORMAL TRAINING CLASS, ALLIANCE HIGH SCHOOL, 1907

Should Pedagogy Have a Permanent Place In the High School Course?

Professor W. R. Hart, Department of Agriculture, Amherst College.

Each one's answer to this question will be colored by his personal bias. The answers themselves will reveal a graduated scale of opinions beginning with a vehement "No" with a big N, and shading off with a qualified "I think not", "I believe not", "I'm not sure", "Perhaps it ought", "It may under stress of conditions", "It may under proper restrictions", "I believe it should", "I think it should" finally ending in an emphatic "Yes" with a big Y. "No" and "Yes" represent the poles of opinion and between them may be formed all shades of modified negatives blending with a nebulous mass of qualified affirmatives.

For Nebraska educators this problem is still without form and void. May the spirit born of a restudy of what education means and what the function of the high school is, move upon the face of the deep and dispel the darkness in which we now grope! We are more in need of light just now than we are of heat.

No answer to the Problem of Pedagogy in the High School can be considered other than temporary and provisional that does not take into account at least the underlying thought of the following propositions:

First, The community has an inherent right to the best service of its own institutions.

Second, Every person whose school nurture approximates a reasonable maturity in point of age, is of right entitled to some instruction in the meaning of educational theory and practice before being thrown upon his own resources. These two propositions are not exhaustive of all that should be considered as fundamental to a comprehensive discussion of the problem before us. These propositions may not be sufficiently self-evident as to be accepted without question, not to say controversy. They are cited however for whatever of truth they may contain and also as a basis for what few words I may add to the discussion of the question touching the permanency of Pedagogy as a high school study. They will be discussed in order.

Prepared for the High School Section of the Nebraska State Teachers' Association, December 27, 1906. Lincoln, Nebraska, by W. R. Hart, A. M., then professor of psychology and pedagogy, State Normal School, Peru, Nebraska.

The first proposition, namely, the right of the community to the best service of its own institutions, raises the question of the function of that educational agency, the marvel of our times, the modern high school. The American public high school is unique in two very important respects. First, the impulse of an enlightened school sentiment which gave it being, demanding an education at public expense in advance of the traditional common school. Second, the influence of college ideals which have given form and body to its course of study. Yes, more than form and body to its course of study—college ideals and influence have given to the high schools a body of teachers imbued with the spirit of sound education, teachers sensible of their responsibility for giving efficiency to this one factor of the state's educational machinery. This last named fact of a responsible and trained teachership for the Nebraska high schools is ample justification for all the college influence that has been exerted by the colleges on the lower schools. The place of the high school in the general course of instruction is probably fixed for centuries to come as a crowning advance upon the common schools of our fathers. Its function, however, is still a debatable question.

The function of the high school in our scheme of education cannot be settled in one debate, nor yet in a decade. We may consider ourselves progressing fairly well if we reach a settlement that will stay put, within a quarter of a century. More interests are involved in the permanent settlement of the function of the high school than have as yet had a hearing in the controversy. A decision without a hearing from all interests concerned must result in what the lawyers call a re-hearing, because some parties in interest have not had their day in court. This is why our high school course of study will not stay settled.

There are at least five factors to be taken into account in determining the function of the modern high school; First, the schools above the high school; second, the schools below the high school; third, the membership of the high school; fourth, the occupational life of the community; fifth, the tax-paying supporters of all these schools. And as a self educating people we are rapidly approaching if not actually confronting the problem of whether or not we shall have one high school with a number of functions, or a number of high schools in the same community each having a single function. This confirms me in the belief that we are not dealing with a temporary makeshift to meet an emergency, but are in the midst of an upheaval the tremor of which will not subside till the whole problem of secondary education has been restudied from new view points. Traditions as to what has been and definitions based thereon are less valuable for clear thinking just now than are a deep sympathy and a broad interpretation of the complex life we are now in. A basis of common right must be found for

diverse educational interests that now seem to be antagonistic. To put aside the matter as a question that is settled only delays the day of our own undoing. Fixity in a great school organization becomes a handicap. Flexibility and adaptation to present and prospective needs is the true measure of the vitality and worth of any human institution.

The university had a hearing more than fifteen years ago and won on practically every point. The high schools became at once preparatory schools. The tax paying factor responded to the increased burden generously, but here and there a protest was lodged against what seemed to some a snap judgment, and the university has yielded some to the pre-empted ground, not in quantity but in the matter of flexibility.

Just now for the first time in the history of our state is another factor, the schools below the high school, getting a hearing. The great common school of the state through its superintendency stands with outstretched hands appealing to the high school for aid in return for the humble service of being its foundation and support. Will the high school give it bread or will it give it a stone?

Stating the case briefly and broadly in behalf of the common school, the least that may be said is that the common school may demand of the high school the same nurture in the form of a qualified teaching force that the high school may demand of the college. To answer this by saying the preparation of teachers is the function of the normal school is simply to prejudge the case against the high school.

Function as such is not inherent in the high school or in any other school for that matter. A school becomes functionally what ever its creators choose to make it. When a school adopts a course of study leading to college entrance it begins at once to perform the function of preparing students to enter college. When a school adopts a course of study leading to the degree of Bachelor of Laws it immediately begins the function of preparing candidates for the practice of that profession. So with a school of medicine. So with a school of pedagogy. So with a school of commerce. And I can see no inconsistency in bestowing two or more of these functions upon the same school,—a thing in fact with which we are all more or less familiar. Already many of our high schools not only prepare students to enter college, but to enter some of the more simple callings of active life. And may not teaching in the elementary schools of the country with statistical propriety be called a common calling of our high school pupils? Will the better equipment of these pupils be the result of local pressure upon the devotees of tradition, or will it be the result of enlightened leadership; a leadership which sees in our present scheme of organization such elements of sustenance and growth that each part may be made to contribute strength to the whole; a leadership that

will make of the high school the same sort of stimulant for the elementary school which the college has proven itself to be for the high school; a leadership that will make the present educational agencies mutually helpful to each other, thereby bringing service to a maximum while keeping the expense at a minimum.

The university performs its highest service to the state in the trained teachers sent into the high schools, and the high school will perform its best service to the community when it sends a body of its graduates into the elementary schools trained to teach. Thus will the community receive its right and the high school fulfill a function no less high than that of preparing students for college, or for business.

The second general proposition to which I would call your attention is the right of every person whose school nurture approximates a reasonable maturity in point of age to be given some instruction in the theory and practice of education. This statement includes much more than is included in the question as to whether pedagogy is in the high school to stay or not. The proposition may on that account be less readily assented to but in my opinion no less defensible, because I have come to look upon the question under discussion as being only a part, and the smaller part at that, of the larger problem in which it is involved, namely, whether or not the study of education should be offered to all students whose school life ends with the high school.

The claim of the individual about to graduate from the high school to the instruction in the theory and art of education can be justified by the following considerations: first, the fact that so large a per cent. of students cease their school attendance at the close of the high school course; second, the fact, that the student of the twelfth grade is mature enough to understand some interpretation of the work of the eleven previous years of his school life; third, that nearly 40 per cent. of the graduates are quite sure to become teachers while more than 90 per cent. are just as sure to become parents. These points are somewhat interdependent and the development of each by argument and illustration would extend this discussion beyond a reasonable limit.

The first of these points raises the old question as to whether the high school should be made primarily to serve those who intend to continue their education in some higher school, and incidentally to serve those whose school life ceases at the end of the high school course or vice versa. Preparation for college and preparation for life have been the slogans of the respective parties to this controversy for some time. The debate at times waxes warm. Tradition and inertia favor the "preparation for college" ideal. Applied knowledge and innovation favor the "preparation for life" ideal. I shall ever recall with admiration how adroitly the onslaughts of those favoring a high school course more in harmony with the occupational life of the com-

munity were parried by the suggestion that "perhaps after all the best preparation for college may turn out to be the best preparation for life." This passed current for sound argument because it bore the stamp and superscription of the then Chancellor of the University. It was a paralyzing stroke for no one seemed capable of making the counter thrust by handing back the proposition that "after all perhaps the best preparation for life may turn out to be the best preparation for college." And indeed who of us feels safe in saying such a preparation may not only be the best preparation for college, but for a better college than the one which now admits the applicant on the traditional classic essentials.

But to return from this digression suffice it to say that because the high school is of necessity the finishing school for so large a part of its students, the study of education should be offered as a part of their equipment for life. It may be objected however that they are as yet too immature to profit by such instruction. This brings us to the real vital point.

In support of the idea that high school graduates are mature enough for a brief and concrete study of education only a few facts will be cited. First, the community at large, as a matter of fact, permits—yes encourages nine out of twenty-three of them to assume the responsible function of teaching. Second, it is a matter of common knowledge that members of the eleventh and twelfth grades are encouraged by county superintendents to attend county institutes if they are contemplating teaching after graduation. Third, the average age is not far from nineteen years which is above the legal limit of infancy for girls in most civilized countries, and within two years of such limit for boys. Fourth, six out of twenty-three are sent by their parents to college often many miles from home. Fifth, they have been assumed to be mature enough to be instructed in the science and art of language, both living and dead, with profit, in the science and art of mathematics with profit, in the science of government with profit, in the science of life with profit. Now if these students have pursued the foregoing sciences from one to eight semesters each with some profit, it would appear presumptive if not conclusive as to their ability to get some profit from a study of the way in which their own minds had to be used in the long journey through the grades and into the high school. A study with the text of his childhood in hand recalling how his own mind behaved as well as noting what sort of stimulation the teacher is giving before his eyes is not only within his grasp, but is of immense value whether the individual ever becomes a teacher or not.

Finally while contending for pedagogy in the high school as a valuable study, far be it from me to assume that the student can get as much value from it there as if he took it two years later in a normal

school or four years later in college. Wherever it is taken it resolves itself into a study of method, and a study of method is no more nor less than a study of how best to do a thing that has to be done some how.

What to Teach

State Department of Education.

What to teach our teachers in the training schools and what our teachers should teach their pupils in the public schools is the paramount issue in American education today. In Nebraska there is but one subject, under the existing statute, which it is mandatory to teach, namely, physiology and hygiene with especial reference to the effect of alcoholic stimulants and other narcotics upon the human system. "There is needed, too, a thorough knowledge of physiology, both temperance and the other kind; not merely for better health, but because it is vital to wise school administration. Moreover, the problem of fatigue, of exercise, of physical training, the relation of learning to physical growth—in fact, nearly all of the questions raised by modern pedagogy—demand a good knowledge of physiology." After making the teaching of physiology a condition precedent to sharing in the state apportionment of public school funds, the law gives the local school officers authority to say what shall be taught in the respective school districts of the state, except in rural school districts, where the course of study is established with the consent and advice of the county superintendent.

There is now a great conviction taking fast hold upon the leading educators and the people everywhere that it is better to teach much of a few things rather than a little of many things. And so came to pass our crusade for the five essentials—reading, arithmetic, grammar, geography, and history. By reading we mean not only the ability to grasp the thought of the printed page in a silent study of the book, newspaper or magazine, but the art of good oral expression. Reading must comprise a knowledge of our best literature and include a mastery of the art of correct spelling, punctuation, pronunciation, and the proper use of the dictionary. Every public school teacher should be a good oral reader. Arithmetic should be intensive rather than extensive. Eliminate stocks and bonds, exchange, alligation, duodecimals, and all such impractical subjects. Make rapidity and accuracy the watchword in the fundamental operations. Let thoroughness and exactness be the motto in the principles and applications of fractions, denominate numbers and percentage. These are the indispensable things to be mastered in arithmetic. This subject should also comprise mental arithmetic. Quoting Dr. Edward Brooks: "The value of mental arithmetic is two-fold: first as a mental discipline; second, as a means of cultivating arithmetical power. Mental arithmetic gives culture to the reasoning faculties, cultivates the power of attention,

gives culture to the memory, cultivates exactness of language, sharpens and strengthens the mind in general, prepares a pupil for extemporaneous speaking, and gives a pupil the power of independent thought in arithmetic, and is an excellent preparation for algebra." Grammar should include English composition and letter writing. Yet how few of our eighth grade pupils, high school graduates, and even teachers possess the ability to write a good letter. The subject of letter writing is the most generally practiced and, practically considered, the most important of all kinds of composition. It is indispensable in business. To be able to write a good letter is greatly to one's advantage in any occupation. Many excellent situations are obtained by teachers, clerks and others on account of this ability, and quite as many are lost through the want of it. In geography nature study, agriculture and commerce must be given consideration. History must not only tell the story of our country—it must teach the principles of free government and the duties of American citizenship.

As already stated we have selected reading, arithmetic, grammar, geography and history as the five essentials. Let us consider briefly the merits of each of these subjects from the standpoint of both the teacher and the pupil as stated by men of affairs.

READING.

Quoting President Felmley: "Every teacher should be a superior oral reader. Every poem was written to be read aloud. The first step in teaching a poem is not to have the allusions looked up, the words defined, or the sentences parsed. It is not to discuss the meter, the rhymes and alliteration, the figures of speech, useful as some of these are. It is rather to read the poem to the pupils so well that its music shall be heard; its rhythm, its melody, its harmony of sound and sense, that give charm to every great work of literary art. The teacher must understand and feel the thought and spirit of the poem; but unless he has perfected his voice as an instrument of expression, he can do little to awaken an appreciation of its beauty and power. The few teachers who can read well often seem afraid to read to their pupils. The children enjoy it so much that it seems like wasting time, if not positively wicked. We still hold to the opinion that work is what you don't like to do. Too much time may be devoted to reading aloud mere books of information, which have no special literary merit. After the mechanics of reading are mastered in the first four or five years, all reading aloud should be of literature—literature in the best sense. There has been in the past few years a lamentable decay in the art of oral expression, especially in our high schools. There is no possibility of relief until good reading is made an essential qualification of the teacher."

Hear ye also Dr. Richard Edwards, one of the greatest educators America ever produced, in behalf of the subject: "Let pupils and teachers study and thoroughly master the lofty thought and the grand descriptions of Hawthorne. Let them become accustomed to the beauti-

ful imagery and the gentle spirit of Longfellow. Let them enjoy the chaste humor and the gentle satire of Holmes. Let them seek to understand the profound but simple philosophy of Emerson. Let them follow Thoreau into his retired communion with Nature and be educated by her simple teachings. Let their minds be enlightened and their taste improved by the thorough but genial scholarship of Lowell. Let them be transformed by the profoundly earnest but gentle influence of Whittier. In the study of each of these authors there is a possibility of valuable culture. The works which these men have given us are a rich and goodly heritage. It is in all respects wise for us to improve it to the best of our ability."

ARITHMETIC.

Let Dr. Edward Brooks, formerly superintendent of Philadelphia public schools speak for arithmetic. "There is reasoning in Arithmetic. All reasoning is a process of comparison; it consists in comparing one idea or object of thought with another. Comparison requires a standard, and this standard is the old, the axiomatic, the known. To these standards we bring the new, the theoretic, the unknown, and compare them that we may understand them. The law of correct reasoning, therefore, is to compare the new with the old, and the theoretic with the axiomatic, the unknown with the known.

This process, simple as it seems, is the real process of all reasoning. We pass from idea to truth, and from lower truth to higher truth, in the endless chain of science, by the simple process of comparison. Thus the facts and phenomena of the material world are understood, the laws of nature interpreted, and the principles of science evolved. Thus we pass from the old to the new, from the simple to the complex, from the known to the unknown. Thus we discover the truths and principles of the world of matter and mind, and construct the various sciences. Comparison is the science-builder; it is the architect which erects the temples of truth, vast, symmetrical, and beautiful.

In mathematics this process is, perhaps, more clearly exhibited than in any other science. In geometry, the definitions and axioms are the standards of comparison; beginning in these, we trace our way from the simplest primary truth to the profoundest theorem. In arithmetic we have the same basis, and proceed by the same laws of logical evolution. Definitions, as a description of fundamental ideas, and axioms, as the statement of intuitive and necessary truths, are the foundation upon which we rear the superstructure of the science of numbers.

These views though admitted in respect to geometry, have not always been fully recognized as true of arithmetic. The subject, as presented in the old text-books, was simply a collection of rules for numerical operations. The pupil learned the rules and followed them, without any idea of the reason for the operation dictated. There was

no thought, no deduction from principle; the pupil plodded on, like a beast of burden or an unthinking machine. There was, in fact, as the subject was presented, no science of arithmetic. We had a science of geometry, pure, exact, and beautiful, as it came from the hand of the great masters. Beginning with primary conceptions and intuitive truths, the pupil could rise step by step from the simplest axiom to the loftiest theorem; but when he turned his attention to numbers, he found no beautiful relations, no interesting logical processes, nothing but a collection of rules for adding, subtracting, calculating the cost of groceries, reckoning interest, etc. Indeed, so universal was this darkness, that the metaphysicians argued that there could be no reasoning in the science of numbers, that it is a science of intuition; and the poor pupil, not possessing the requisite intuitive power, was obliged to plod along in doubt, darkness, and disgust.

Thus things continued until the light of popular education began to spread over the land. Men of thought and genius began to teach the elements of arithmetic to young pupils; and the necessity of presenting the processes so that children could see the reason for them, began to work a change in the science of numbers. Then came the method of arithmetical analysis, in that little gem of a book by Warren Colburn. It touched the subject as with the wand of an enchantress, and it began to glow with interest and beauty. What before was dull routine, now became animated with the spirit of logic, and arithmetic was enabled to take its place beside its sister branch, geometry, in dignity as a science, and value as an educational agency."

ENGLISH GRAMMAR.

The importance of the study of English grammar can hardly be over-stated. Prof. William D. Whitney of Yale University, and editor-in-chief of the Century Dictionary, says: "Give me a man who can, with full intelligence, take to pieces an English sentence, brief but not too complicated, even, and I will welcome him as better prepared for further study in other languages than if he had read both Caesar and Virgil, and could parse them in the routine style in which they are often parsed."

English grammar comprises letter writing and composition. Yet how few of our high school graduates and even teachers possess the ability to write a good letter. The subject of letter writing is the most generally practiced, and, practically considered, the most important of all kinds of composition. It is indispensable in business. To be able to write a good letter is greatly to one's advantage in any occupation. Many excellent situations are obtained by teachers, clerks, and others, on account of this ability; and quite as many are lost through the want of it.

GEOGRAPHY.

Dr. George E. Condra of the University of Nebraska, has the floor

for geography. Listen to what he says: "It is rather difficult for me to estimate the full importance of the various school subjects. I believe the different branches should not be caused to stand out very prominently in the lower grades. Yet we can readily see that certain lines of study and teaching seem best adapted and at the same time most essential at different stages of the pupil's progress. The subjects are to serve the taught. The basis of selection must be the pupil with his obligations to self and to society. He must learn to see, do and be right. In all this he is influenced both directly and indirectly by his environment. The mission of geography is to open the eyes and mind of pupils to the physical and industrial world in close proximity to them. McMurray says: 'Geography is the connecting bridge between two great real studies,—nature and men'.

The subject is many sided. It treats in its own way our food supply, shelter, commerce, and adaptations to geographic conditions. It affords a very necessary mental contact with nature, at the proper time, without which higher education is not possible. Summarizing, we may say that the subject is natural, practical, economic, and cultural. Can we say more of any other branch?

I am not able to line up the principal subjects in the one, two, three order, but it appears to me that geography and its nature study adjunct is a necessary and important study, and should not be omitted from the list. The Committee of Fifteen reports as follows: 'After arithmetic, which treats of the abstract or general conditions of material existence, comes geography, with a practical study of man's natural habitat and its relations to him.'

The Committee of Fifteen says further: "The child commences with what is nearest to his interests, and proceeds gradually toward what is to be studied for its own sake. It is therefore a mistake to suppose that the first phase of geography presented to the child should be the process of continent formation. He must begin with the natural differences of climate and lands and waters and obstacles that separate peoples, and study the methods by which man strives to equalize or overcome these differences by industry and commerce, to unite all places and all people, and make it possible for each to share in the productions of all. The industrial and commercial idea is therefore the first central idea in the study of geography in the elementary schools. It leads directly to the natural elements of difference in climate, soil, and productions, and also to those in race, religion, political status, and occupations of the inhabitants, with a view to explain the grounds and reasons for this counter-process of civilization which struggles to overcome the differences. Next comes the deeper inquiry into the process of continent formation, the physical struggle between the process of upheaving or upbuilding of continents and that of their obliteration by air and water; the explanation of the mountains, valleys, the plains, the islands, volcanic action, the winds, the rain distribution. But the

study the cities, their location, the purposes they serve as collecting, manufacturing, and distributing centres, leads most directly to the immediate purpose of geography in the elementary school. From this beginning, and holding to it as a permanent interest, the inquiry into causes and conditions proceeds concentrically to the sources of the raw materials, the methods of their production and the climatic, geologic, and other reasons that explain their location and growth."

The Right Hon. James Bryce, M. P., wrote the following in behalf of geography in the *Journal of Geography*, May, 1902.

"We are now all agreed that geography is the foundation of history, and that the historian must know geography. It is perhaps not equally necessary that the geographer should know history. At the same time a geographer may gain a great deal by knowing something of history, and some branches of his subject will remain incomplete unless he possesses that knowledge. Without pursuing the subject in detail it may serve to illustrate the proposition that geography is the key to history if I mention some branches of history upon which geography pours a direct and illuminating light. One of these, for instance, is ethnography. The whole study of the races of mankind and their connections with one another, and their mingling and blending with one another, and their passage from one part of the earth's surface to another, evidently depends upon a knowledge of geography and in particular of physical geography, because it is these physical conditions that have influenced the movements and blendings. So linguistic history, which is almost a branch of ethnography, is another subject on which the geographer can throw light. Or take the case of military history, itself a branch of political history, and consider how much physical geography has to tell the student of wars and campaigns about the importance of lines of communication, the significance of mountain ranges and rivers, the places available for fortification whether by seas or rivers, or on hills. You will see at once that a knowledge of the physical geography of a country is essential to a man who studies military history in a scientific spirit. Then if you come to that large branch of history for which we have no satisfactory English name, it is what the Germans call *Kulturgeschichte*, the history of the social and economical progress of man, the history of the kind of culture which expresses itself in social life and artistic life and the development of letters and learning and science—that branch again is of course intimately connected on many sides with the physical environments of the countries in which a civilization has been developed. You may find in such a book for instance as Mr. Payne's recently published '*History of the New World called America*,' how the whole history of the aboriginal American peoples, and especially of those who early attained to a certain measure of civilization, can be treated most profitably in connection with the physical conditions

under which they lived, and under which the latter outstripped their fellows.

An extremely interesting aspect under which geography ought always to be studied in relation to history is the change in relation of man to his environment between earlier and later times. This is a special point which I will do no more than indicate, but you will see how interestingly it might be worked out. While man is still in his primitive stage and not yet civilized he is in entirely different relation to natural conditions from that which he bears when he has invented arts and sciences, and when he has become master of the forces of nature. In this primitive state defense against wild creatures and ease of procuring food were his great necessities, but in his more advanced stage it is the facility wherewith he can obtain a supply of those forces of nature which he can bend and use for his own purposes that becomes the most active agent in advancing his further progress.

There is also one aspect of the relations of geography and history which is of great importance, and that is the history of geographical discovery. We do not always, in our teaching of history, give quite enough importance to making the pupil realize the quantity of geographical knowledge which was possessed at different periods of the Earth's history by the various peoples who inhabited it. Many a young man may go through the university course having realized very imperfectly what was the amount of geographical knowledge that was possessed by the ancient world at different epochs, and similarly the steps by which geographical discoveries since the days of the Portuguese in the middle of the 15th century have been advanced. It adds much to the interest of study and it explains many of the phenomena of history to make the pupil at every stage of his progress have a picture of the world as then known before his mind, and to realize where it was that darkness lay and on what points light had from time to time fallen during the long progress from the days of Homer to our own, in the discovery of the various continents and oceans of the world. For that purpose we want a greater number of historical maps in our atlases than we generally possess, and I am sure on the walls of a college lecture-room nothing could be more serviceable than to have these constantly displayed before the pupil. It may be that in the best historical schools this is now done. It was not so twenty or thirty years ago.

Lastly, the third aspect in which geography comes into education, or rather the third of the aspects that I am asking you to consider, for there are doubtless other aspects, is that in which it is regarded as the basis of commerce. Commerce reduced to its simplest terms is an exchange of products, and both the maker of any article and the exporter of that article ought to know where each article can best be

produced, whence the raw material used in manufacture come, which are the places best adapted for manufacture, and where are the best markets. To use the words of Vergil, the merchant ought to know *quid quaeque ferat regis et quid quaeque recuset*, what each country bears and what each country refuses to bear. He ought to know what are the conditions under which the product can be obtained, what are the conditions of labor that determine the getting it and transporting it, what are the markets, whether near or distant, in which it may best be disposed of and where requirements affect its production, and what are the lines of communication and transport along which it can best (most swiftly and profitably) be carried, whether by sea or land."

AMERICAN HISTORY.

No person should take upon himself the grave responsibilities of teaching without a comprehensive, minute, practical knowledge of the history of his country. A narrow view can no longer be taken in the study and in the teaching of American history. Hear Senator Beveridge on this point: "The dominant notes in American history have thus far been self-government and internal improvements. But these were not ends; they were means. They were modes of preparation. The dominant notes in American life henceforth will be, not only for self- and internal development, but also administration and world improvement."

The value of history cannot be better stated than in the words of Gladstone: "The several kinds of knowledge need to be balanced one with another, somewhat as the several limbs of the body need a proportional exercise in order to secure a healthy and equable development. The knowledge of the heavenly bodies, the knowledge of the planet on which we live, and the qualities of all its material elements and of all its living orders—valuable, nay, invaluable as it may be shown to be, is nevertheless knowledge wholly inferior in rank to the knowledge of the one living order that beyond measure transcends all the rest, and that has for perhaps its most distinctive characteristic this—that it possesses a history. This history is among the most potent and effective of all the instruments of human education. It introduces us to forms of thought and action, which are infinitely diversified; it gives us far larger materials of judgment upon human conduct, and upon the very springs of action than any present experience can confer. The historical mind is the judicial mind in the exactness of its balance; it is the philosophic mind in the comprehensiveness and refinement of its view."

The great lesson of history, according to Froude, is this: "The world is built somehow on moral foundations; in the long run, it is well with the good; in the long run it is ill with the wicked. Opinions alter, manners change, creeds rise and fall, but the moral law is written on tablets of eternity. For every false word or unrighteous deed,

for cruelty and oppression, for lust or vanity, the price to be paid at last; not always by the chief offenders, but paid by some one. Justice and truth alone endure and live. Injustice and falsehood may be long-lived, but doomsday comes at last to them, in French revolution and other terrible ways." Let no teacher fail to impress upon the rising generation the great lesson of history.

The Teaching of Arithmetic

Professor Simon Newcomb, Washington, D. C.

The first question to arise in the minds of this honored assemblage on the present occasion may well be how it happens that one not supposed to have been professionally engaged in the instruction of youth should ask a hearing from a body of teachers of such wide experience as that here present. The answer is that during almost my entire adult life I have had occasion to employ and train young men in numerical computations pertaining to astronomy. When candidates presented themselves for employment in this presumably abstruse work, it was naturally supposed that great stress would be laid on the mathematical course they had taken in school or college. After a few years of experience the general reply which I had to make to all questions of qualifications was that proficiency in arithmetic came first in importance, and the first rule, simple addition, was the most important of all. Subtraction was scarcely below it, and multiplication and division were desirable. Next in order came general ideas of quantity, which one could scarcely be expected to acquire without some training in the higher mathematics and yet which evaded exact definition. This standard of qualification was emphasized because the general rule was found to be that the candidate had learned his arithmetic by methods inherited generation after generation from the colonial schoolmaster, without infiltration from those professionally engaged in applying arithmetic to practical purposes. In the case of more advanced mathematical subjects the main object in view had been mental discipline; and the idea of implanting mathematical conceptions that the student should be able to see and apply in daily work had never entered into the plan. It was therefore often necessary to begin by showing a beginner in my work how to add and subtract.

Another noticeable circumstance was that the deficiency in arithmetic was more marked in American youth than in foreigners, especially Germans. I found that, however little education a German applicant might have had, he was at least as good an arithmetician as the best American. In view of the excellence of our common-school system, the question could not but suggest itself whether there might not be some trait of the American mind unfavorable to the development of arithmetical capacity. But experience has led me to the conclusion that it is more in our methods of teaching than in the want of capacity that the

*From the Fiftieth Anniversary Volume, National Educational Association, 1906.



NORMAL TRAINING CLASS, LEXINGTON HIGH SCHOOL, 1907



NORMAL TRAINING CLASS, MINDEN HIGH SCHOOL, 1907

difference is to be sought. When my children went to school I found that their little brains were being painfully exercised in commercial arithmetic, custom-house business, and other exercises no more conducive to mental efficiency than an hour or two spent in trying to lift a house would have been to the health of their muscular system.

It is one thing to see a defect, and quite another thing to devise a remedy. I have from time to time tried to gain what light I could on the points in which the common-school education in Germany differed from our own. A very little inquiry in this direction, added to what I knew from experience, showed that the German system was broader and more practical in its aims than our own; but I saw no reason to suppose it the ideal one of which I was in search. I therefore tried to reach conclusions of my own as to methods of mathematical teaching, in at least the elementary branches, especially arithmetic. One point was clear: our teaching was too abstract and too much dissociated from objects of sense. In 1892 I published in the *Educational Review* a paper on the teaching of mathematics, in which I emphasized this view, and suggested methods by which elementary arithmetical ideas could be gained and enforced through the senses. It was discouraging never to learn that this paper seemed to excite attention. But when I returned to the subject during the past twelve months, I was much pleased to find that the very ideas which I had then set forth, not only as to general principles, but in detail, are now features of the latest arithmetics that have been written. Whether my paper was or was not a factor in this change I cannot say. Perhaps the case will be a little more encouraging if it was not. The main point is that if, as the facts seem to indicate, ideas which I then set forth are now found worthy of acceptance by practical teachers, the same may be true of the results of further studies in the same direction, to which I now invite your attention.

In any branch of human endeavor the first requirement is a clear conception of the purpose in view. Our first question must therefore be that of the object aimed at in the teaching of arithmetic.

It is now universally admitted that the main purpose of education is the building up of the mind and training of the faculties, rather than the acquisition of knowledge or the mastery of details set forth in textbooks. "Discipline" and "culture" are terms often used to express this purpose. In the case of mathematics, discipline is commonly considered to be the main object. But it seems to me that a precise definition of what we mean by discipline is wanting. In its most acceptable form, I should define it as the development of the power of co-ordinating the action of the various faculties and directing it toward a definite end. Granting this, it is, above the kindergarten stage, rather a corollary than an object to be kept primarily in view. I shall therefore pass it over and try to state the purpose in a more definite form.

Without going into details, a very little thought will, I think, make it clear that the main end of mathematical teaching—we might say of teaching generally—is to store the mind with clear conceptions of things and their relations. In the case of elementary arithmetic the things we first deal with are numbers. It follows that a clear conception of numbers and their relations is the end toward which our teaching should be directed. I think every teacher who has carefully studied the mind of the apparently dull pupil will agree that the real difficulty is to give him an insight into the nature of the problem he is to solve. He may be able to repeat the words; but you find that these words do not make a sufficiently definite impression on his mind. Clear and accurate conceptions of the relations of number are therefore to be generated.

To show what we mean by clear conceptions of number we must stray into the field of psychology. We may conceive of the brain of man as a microcosm, containing within its narrow limits all that the individual knows of any and every subject. There are two universes, the microcosm within us and the macrocosm without us. The success of the individual, not only in all the applications of science, but in every branch of endeavor, depends on the accuracy and completeness with which processes at play in the subject with which he is dealing are represented by corresponding processes in his own microcosm.

Admitting that everything known of external nature has its image in the mind of the man who knows it, I cannot but regard it as a defect in psychological nomenclature that there is no one general term used to express this mental image of an external object and nothing else. To take a familiar example, we all have an idea of the house in which we live. We can think of the building, of the arrangement of its rooms, when it is out of sight, as if we had a picture of it in our mind's eye. This picture is not a flat plan, but rather a model embodying the arrangement of all the rooms in the house. What is true of the house is true of all human knowledge and of its applications. The engineer can in his mind erect bridges in which the actions of stress and strain shall correspond to those in the actual bridge; in the mind of the chemist, compounds react as in the laboratory; and so through every branch of knowledge.

One moment may here be devoted to avoiding a possible stumbling-block. The question may be asked whether it is quite correct to speak of the mental images which I have described as if they were permanent existences in the mind, whether it is not more correct to speak of them as something which the mind forms for itself when necessary, but which cease to exist when we do not think of them. I reply that my argument will be the same whether we take one of these views or the other. If I speak in accordance with the first view, it is because I find it more convenient to think and speak of such an idea as that of the house in which we live, or of a figure in geometry, as if

it were a permanent existence in the mind, brought into use whenever we need it, rather than as something to be constructed *de novo* every time we have occasion to recall it. But if one prefers this latter view, he is quite free to adopt it. The main point is that, when we think clearly about any object, we have an image of it in our mind's eye.

From this point of view my main contention is that the first and great object in training the growing child in arithmetic is to store his mind with clear and accurate conceptions of numbers, magnitudes, and their mutual relations which he shall be able to apply with readiness in any actual case that may arise. That I have elaborated this point so fully is due to the fact that it should never be allowed to drop out of sight in our teaching. The latter must be arranged from the beginning with this one end in view. Granting this, the next question in order is that of method. Here psychology can supply us with a guiding rule. However abstract may be the ideas which we wish to plant, they must originate in sensible objects. But they must not stop there because, after all, generalization—conscious and unconscious—is to be aimed at from the beginning. Let me illustrate my meaning by taking the number 10 as an example. I think psychologists will agree that there is no such thing in the human mind as a conception of the number 10 otherwise than as a quality characterizing 10 distinct objects. A written or verbal symbol may be used for the number, but this is not a conception of it. The point is that the word or symbol being pronounced or shown, the pupil should at once conceive of 10 objects as distinct from either 9 or 11; and should be able to handle that conception in all the ways in which it can be handled.

Here there is an obvious advantage in selecting such objects as have the least number of qualities to distract the attention from the fundamental idea of number. Hence I prefer that the counting should be made upon small dots, circles, or other objects with few qualities, rather than upon more interesting objects which are met with in everyday life. In this suggestion I may seem to run counter to views which are entertained by very high authorities in education. There is, I admit, a very strong argument in favor of the view that the principles of arithmetic are best mastered when the child is taught to consider them as growing out of the problems that actually confront him in his daily walks. I fully agree that the practice thus suggested is one that should be carried out, but we must not depend wholly upon it. Perhaps I am a little old-fashioned, but I would not abandon the idea of applying the pupil's nose to the grindstone. I have no objection to the grindstone being interesting, and certainly do not wish to make it painful; but I want some drill in thinking of numbers and their relations as dissociated from the actual objects concerned. Just as rapidly as this power is attained in each and every branch, I am willing to see the interesting substituted for the instructive.

We now pass from this general view of the object, and method of obtaining it, to the discussion of details. As my views on some points are radical to the point of being revolutionary, I wish to borrow a suggestion from universal experience. We all know that the acquisition of a new language is one of the most difficult tasks which a youth has to undertake during the period of his school life. Our best colleges make a knowledge of French and German one of the requisites necessary to graduation. To one or both of these languages painful attention is devoted thruout a period of one or more years. In former times—to a great extent even today—several years of study are devoted to Latin, instruction in which is, in regular course, continued in the college or university. And yet it is exceptional to find a college graduate who can fluently read at sight a Latin author whose work he takes up, for the first time; who can conduct an easy conversation in French, or can write in idiomatic German an account of his day's doings.

In contrast to this result is the fact that every child not a mental degenerate, during the first few years of life, learns to use a language with an ease and fluency which a course of school instruction never supplies. What is more curious yet, there is no striking difference among children in their faculty of acquiring their own tongue. In school we have dull pupils whom it seems a waste of energy to try to educate, and bright boys, who learn more in a month than dull boys do in a year, and learn it better.' But no one ever heard of a child especially bright or dull in learning to speak. Differences there undoubtedly are, but they do not compare with those shown under our system of school instruction.

I consider this well-known fact to be instructive in showing that we have at least one branch of education which we find to be toilsome or difficult when the traditional method is followed, and yet so simple and easy by other methods that no special ability is required in the teacher, and no mental strain suffered by the learner. The question I submit to your consideration is: If this is true of one branch of education, may it not be true of other branches, and especially arithmetic? I shall briefly mention the lessons which it seems to me we may gather from this fact.

The idea of arranging subjects in order, and completing one before passing to another, is plausible; but experience shows it has its limitations. The great principle which the experience alluded to especially enforces is the educational value of frequent reiteration of very short and easy lessons. This is one of the main features of the system I am trying to develop.

Now, as my object is a purely practical one, it is necessary to have some idea, however brief, of the method by which the purpose in view can be most readily attained. The system I advocate may be called visible arithmetic. Taking up subjects much in the order of the traditional arithmetic, the first would be numeration. Visible numeration consists

in counting and arranging objects in tens and in powers of tens. At the earliest age when simple arithmetic can be commenced, I should teach the child to count and arrange things in 10's; then to arrange real or imaginary 10's in 100's, and so on. In accordance with the general principle which I have laid down, I would begin with rows of 10 dots each, and teach the counting thru 10 such rows, making 100 in all. We could then imagine the results of laying successive 100's in flat layers on top of each other, thus getting the idea of multiples of 100 up to 1,000.

It would be psychologically interesting to see whether in this way we could plant in the mind what the psychologists call a number form in a more rational shape than it commonly takes. I suppose we all have vaguely in mind from infancy a certain arrangement in series of small numbers up, say, to 100. It would be interesting to know whether a more rational arrangement would be gained by this process; but this is not important for mathematical purposes.

Next would come the process of adding and subtracting grains of corn, or dots, or little o's made on the slate. Methods of doing this are so familiar that I need not dwell upon them. The practice of multiplication and division in this way does not seem to need much exposition. We can repeat a row of any number of dots as often as we please, and count the product. We can divide any number into groups of any smaller number, and find the quotient and remainder. All these exercises on the four rules of arithmetic need not take much time. My impression is that you will find, after a very little showing, that the child is able to perform the fundamental rules upon collections of grains of corn or dots, without devoting much or long-continued effort to the process.

The next step would be to extend the operations to continuous quantity as represented by lines and areas on paper or the blackboard. The addition of lines consists in placing them, or lines equal to them, end to end, thus obtaining a line equal to their sum. Subtraction consists in cutting off from the longer line a length equal to the shorter one. Multiplication by a factor consists in adding together equal lines to a number represented by the factor. Division takes a two-fold form. We may either divide a line into a given number of equal parts, thus obtaining a certain length as the quotient; or we may find how many times one line is contained in another, thus obtaining a pure number or ratio as the quotient.

Please understand that this system of visible arithmetic is not a substitute for ordinary arithmetic, but an auxiliary to it. Whether it is advisable to master it before beginning regular work with figures, or to carry on the two simultaneously, only experience can tell.

However this may be, in teaching written arithmetic I would have the pupil make his own addition, subtraction, and multiplication tables by the aid of countable things. Taking groups of six things—dots or grains of corn—the pupil finds the successive products of six by different

factors, and writes them down in order for himself. He thus knows exactly what the multiplication table means. On the subject of using it I shall presently have more to say. The treatment of fractions in a visible way by dividing lines up into parts is simply an extension of multiplication and division, and is too obvious to need development. I therefore pass on to a further extension of the method.

The next subject in order would be ratio and proportion. On my plan the pupil reaches the first conception of this subject thru the eye by drawing a pair of lines of unequal length, and then other pairs, shorter or longer, in the same ratio to each other. In this way the pupil will see the equality of ratios, independent of the special lengths of the lines. He can then be gradually exercised in forming for himself an idea of what a ratio means, or how equality of ratios is to be determined by multiplication or division. I would not have measurement with a rule applied, but only eye-estimates. This, I may remark, is the general system by which I think we should begin in all cases. The reason for it is that in making eye-estimates we depend more completely upon the eye-conception than when we measure; but as soon as the conception is gained, we may proceed to measurement. Having got the idea of a proportion of lines, we next pass to areas, including the idea of the duplicate proportion and the geometric mean. All this can be done without using figures or numbers. When the conception is well implanted, then proceed to numbers.

In connection with proportion would come geometrical representation of all the quantities which enter into arithmetical problems. Take as an example questions in day's work in plowing a field. We draw a short vertical line to represent a man or his power. On this line as a base we draw a horizontal rectangle to represent the amount of land which the one man can plow in a day of ten hours. If we have several men, we add into one the lines representing them, and combine all the rectangles into one. Then we extend these rectangles to represent the days. To introduce the idea of compound proportion, we suppose the results of a day of eight hours by making a rectangle shorter in proportion. I consider any problem in compound proportion solved when, and only when, the pupil is able to represent it graphically on this system. I am sure this process would be more interesting than the use of figures.

The precise purpose of this course in visible arithmetic is so far from familiar that further enforcement of it may be necessary to its complete apprehension. It must be especially understood that exercises in formal reasoning do not enter into the plan. A power of visualization and of giving a concrete embodiment to the abstract ideas is the fundamental point aimed at. If I should express the desire to have a pupil trained from the beginning in the mode of thought of the professional mathematician, I might meet the reply that this was expecting too much of the childish mind. Allow me, therefore, to put the requirement into a slightly different form. I wish the pupil trained from the begin-

ning in the use of those helps to thought which the advanced mathematician finds necessary to his conception of the relations of quantities. If a mathematician has no clear conception of an abstract quantity, how can he expect a child to have it? The mathematician expresses quantities by geometrical forms and the movements of imaginary invisible points. Let us, then, train the child to represent the simple quantities with which he deals by simple auxiliaries of the same kind, adapted to the state of his mind and to his special problems. What I wish him to use is not merely a tool, but a necessary help to thought. The visible arithmetic which I advocate bears the same relation to ordinary arithmetic that the geometric construction of complex variables does to the algebra of the mathematician.

Altho I have spoken of the graphic constructions as merely an auxiliary, I would, after denominate numbers are disposed of, be satisfied with the graphic representation of all solutions required. After this point I would require very little mathematical solution of problems, being satisfied when the pupil is able to construct a graphic representation of the solution. When he can draw proportional lines, explain discount by cutting off and adding fractions of a line to the line itself, and in general show that he can form a clear conception of the practical problems of arithmetic, I should consider that he knew enough about it, so far as the mere numbers are concerned. Everything beyond this should be treated by algebraic methods.

Thus far I have treated of only one main object of arithmetical teaching. But there is another purpose of a different kind, and that is facility in the use of numbers. The pupil must not only know the meaning of multiplication and division, and understand when each is required, but he must be able to cipher rapidly and correctly. My views of the best method of attaining this end are perhaps even more radical than those I have already set forth. I think it can best be gained by short and frequent daily practice in the routine operations of the four fundamental rules, quite apart from the solution of problems. I would have something analogous to a daily five-minute run in the open air. The reiteration of simple problems, after the pupil sees clearly how to conceive them, is a waste of time. But this is not so with exercises designed to secure facility. Leaving details to the teacher, I would outline some such plan as the following:

Let an entire class devote a few minutes every morning either to reading or repeating aloud in chorus the addition, subtraction, or multiplication tables, until it is ascertained that the large majority of the class has them well by heart. I should not make it a point to have them repeat the tables from memory alone, because I think the result is equally well attained by simply reading aloud. Another exercise would be that of adding columns of figures, following the method of the bank clerk or the astronomical computer. It would facilitate this to have the exercise printed on sheets beforehand. Twelve lines of figures would be a

good number. The earlier exercises may begin with three in a line; when these are easily done, add a column of thousands, then the tens of thousands, and so on. Do the same thing with exercises in multiplication and division.

These may seem rather dull exercises, but we can easily add an element of interest by choosing some condiment of which a very little will suffice to flavor an otherwise long and tedious course. The mere act of repeating in chorus will give interest to the exercises. In addition an element of interest will be given by noting from day to day the gradually diminishing time in which each pupil can complete his exercise and prove its correctness.

Thus far I have spoken only of methods of teaching. But I believe that, if the system which I advocate is intelligently pursued, it will be found practicable to curtail greatly the time spent in simple arithmetic and thus rearrange the curriculum with the view of disposing of the subject of arithmetic, and passing on to algebraic and geometric methods, at a much earlier age than at present. In this connection attention may be invited to the report of the Committee of Ten, made in 1892, in which important changes in this direction were proposed. It must be admitted that in making such changes we shall be running counter to the ideas of the general public. When it is proposed to omit commercial and so-called advanced arithmetic from the school course, the reply is likely to be that we are considering only the requirements of pupils preparing for a college course; and that business and commercial arithmetic is a prime necessity with the masses. There being in our country no body of men more influential than that here assembled in wisely directing public opinion on this subject, I beg leave to point out the fallacy in this plausible view. The experience of directors in our great enterprises shows that the best business mathematician is not the one who has taken a course in commercial arithmetic, but who has the best understanding of numbers and quantity in general, obtained by the more advanced course of a mathematical character. A problem of practical business is best taken up by one who understands it. On the purely practical side, that understanding can be better gained in one day by actual experience than by any amount of arithmetic in a course subject to all the drawbacks of being treated as an abstraction.

I once saw an interesting example of this. It was in connection with a building association on an old-fashioned plan, which, I fear, has gone out of vogue. It was a mutual-benefit association in which accumulating results of monthly payments thru a term of years were to be equitably divided month by month among the members desiring advances. The mathematical principles involved, if investigated in detail, were so complex that only a professed mathematician would be able to construct or apprehend their theory. Yet, when the problem was faced as an actual one, the whole process was gone thru with by everyday business men and laborers without the slightest difficulty. Not one of these

could have explained the process to a learner, but he went thru each step correctly when the concrete problem was before him.

We should also try to dispel the current notion that the use of algebraic symbols belongs to a more advanced stage of study than arithmetic. We have advanced a little in the right direction since the time when the signs $-|-$ and $—$ were considered as belonging only to algebra, and therefore were not used in arithmetic. If my contentions are well grounded, the application of algebraic methods may be commenced as an auxiliary to arithmetic at a much earlier stage in the course than at present. In connection with the graphic construction of problems which I have suggested may come their solution in the form of an algebraic expression. If this seems too much to expect from the young mind, I think that impression will disappear on closely looking into the case. Let us grapple with the subject by taking it up as it really is. What will 13 pounds of tea cost at 55 cents a pound? Before the arithmetical solution can be begun, the pupil must understand that the cost is equal to the product of 55 cents into 13. It follows that, if he sees this, he can write on his slate as the answer 13×55 . If a given sum of money is to be equally divided among 11 people, what will be the share of each? The answer is to be found by dividing by 11. If the pupil knows this, he can write a fraction, with the sum to be divided as the numerator and 11 as the denominator, more easily than he can perform the division. It follows that by the combination of the two problems he can express the result of dividing the price of the tea among 11 persons. The same thing holds true in all the problems of arithmetic, after the first four rules are disposed of. Not only will no greater difficulty be encountered in expressing the solution in this way than in performing it, but, since the idea to be expressed must be in the mind before the arithmetical solution is commenced, it will be a help to express the result in what we call the algebraic form.

We shall also find that the use of algebraic symbols of quantity is much simpler than is commonly supposed. If we have four x 's, it is simpler to call their sum $4x$ than to call it x multiplied by 4. This suggests the idea, which I think is correct, that it is simpler and more natural to consider the figures 6 and 7 together to mean 6 multiplied by 7 than to have it mean, as we actually do, sixty-seven, which latter means 6 multiplied by 10 plus 7. Granting this, the expression of simple arithmetical problems in the form of equations will be easy, and I should suppose more interesting and more improving than requiring the pupil to work at the solution without using algebraic processes. It goes without saying that this use of algebraic methods in elementary problems does not imply the manipulation of algebraic expressions, including their factoring and division, which forms so prominent a feature of the usual elementary course in algebra.

Having suggested all these innovations, allow me to sum up in briefest compass the practical conclusions which I draw from a survey of the field.

I. I do not propose that we shall train a pupil in abstract mathematical reasoning until he reaches the stage where pure geometry can be advantageously taken up. But, from the very beginning, he should be trained in the faculty of mental insight. This can be done by problems like this, to be answered by thought without making a drawing. Of three houses, A, B, and C, B is 100 meters north of A, and C is 100 meters west of B. What is the direction of C from A, and about what would you suppose its distance to be?

II. I regard time spent in the schoolroom poring over problems and trying, perhaps vainly, to see how they are solved, as time wasted. Much waste in this way is indeed unavoidable; but our policy should be to reduce it to a minimum by explaining the problem whenever the pupil does not readily see into it for himself.

III. Of course, we should train the mind in seeing how to attack a problem. The objection may be made that whenever we help the pupil in this respect, we diminish his power of helping himself. I admit this to a certain extent; but my solution is that we should devise such problems that the course of thought they require can be seen without spending time in vain efforts. Please let me cite once more the analogy to outdoor exercise. We should all agree that, if we coupled the exercise of taking an outdoor run with the requirement of finding out at every few steps what path was to be followed, and put an end to the exercise if this right path could not be found, it would materially detract from the good of the exercise. Let us, then, in our exercises try to promote facility of calculation by exercising the pupil in purely straight-ahead work, without requiring him to stop and think what is to be done next.

IV. I have found in my own experience that words are as well and more easily memorized by repeated reading than by the same amount of repetition from memory. If this principle is correct, then we never lose anything by having the multiplication table before the pupil every time he repeats it, so that he shall read instead of memorizing it. I do not present this view as a demonstrated fact, but as one well worthy of being tested.

V. The plausible system of learning one thing thoroly before proceeding to another, and taking things up in their logical order, should be abandoned. Let us train the pupil as rapidly as is advantageous in the higher forms of thought, and never be afraid of his having a little smattering of advance subjects before they are reached in the regular course. Let us remember that thoroness of understanding is a slow growth, in which unconscious cerebration plays an important part, and leave it to be slowly acquired. A teacher aiming at thoroness might have Cayley or Sylvester working half his life in problems of advanced arithmetic without reaching the standard of thoroness. Let us rather promote the development of higher methods in the earlier stages by introducing algebraic operations immediately after the four fundamental rules.

VI. Separate the actual exercises for acquiring facility in arithme-

tical operations from the solving of arithmetical problems. If I am right, it will be more conducive to progress to be satisfied with the graphic representations of problems, without the arithmetical operations of solution, than by actually going over the solution itself.

VII. If I am not straying too wide from my theme, I may devote one moment to the extension of the ideas I have advocated to the mensurational side of geometry and physics. As a part of the arithmetical course let us teach geometrical conceptions, the aim being a correct apprehension of lines, lengths, angles, areas, and volumes, as they actually exist in the objects around us, and are to be conceived in thought when these objects are out of sight. Valuable exercises in this respect will be endeavors to estimate a result in advance of calculating it. If a freight car is the subject of measurement, either in thought or by a picture, let the pupils form the best judgment they can as to the number of cubic meters or the tons of water the car will hold, before making the computation. Practice in estimating length and angles by the eye, and, in fact, in estimating magnitudes generally, should be a part of the elementary course.

I conclude with some thoughts on what is, after all, the great question involved. What are we to expect from the introduction of such a system as I have outlined, and how far shall it be carried? On ground which is, so far as my knowledge extends, as new as this, it would be hazardous to reach a decided conclusion in advance of trial. Here again the difficulty arises that a really decisive trial must be guided by clear apprehension of the purpose in view, which may essentially differ from that with which arithmetic is generally taught. Suitable exercises must be constructed; and this cannot be done until their purpose is fully seen. If I should express the hope that, thru the proposed system, the average boy of ten might be as well qualified to begin algebra as he is at the standard age of, I believe, thirteen or fourteen, I should not be interpreted as meaning that the mathematical faculty would be as well developed in one case as in the other. As I have already pointed out, development of the mind is a slow growth. The expectation would therefore not merely be an acceleration of the mental growth, but a development of the faculty of using powers which may be awakened at an age earlier than is commonly supposed. I may make this clear by referring to the fact, already pointed out, that a language is so easily and rapidly acquired by the natural process, when the acquisition would be slow and difficult by the process of teaching. If we could imagine a child ten years old who had been taught to speak only by rule and grammar, learning first nouns and then verbs, and compare him with one seven years old who was without theoretical instruction, but had learned to talk in the usual way, we might perhaps find that the older boy was better developed, had a much better theoretical understanding of words and their meaning than the younger would have. But the younger would be far ahead in the facility with which he could use language, and apply what he knew in promoting

his further intellectual advancement. Something like this I should expect from instruction and practice in visible and graphic arithmetic.

Of course, it should always be understood that the process must begin by being a tentative one, applied step by step. I therefore earnestly hope that some teacher will prepare, and some publisher be willing to bring out, a series of exercises of the kind I have described, to be tried on a small scale at first, and expanded as far as found successful in results. I certainly cannot conceive that the time spent in a few such trials would prove to be thrown away, even if the results did not come up to expectation.

This is my first and, perhaps, my last appearance before a body of eminent educators. While I fear that the possibilities I see before me may seem to be the ideas of an enthusiast, I trust that careful thought and experience will lessen the impression. I therefore make bold to say that it seems to me quite within the power of education to make as great a revolution in the intellectual powers of the masses of our population as science has made in the powers of the few thinkers who pursue it. The scientific investigator has been aptly described as a new species of the human race; a species so rare that it might well be considered an abnormal one. This species made its first appearance only four centuries ago, yet, it has revolutionized the conditions which surround humanity. I think it is possible that a similar revolution may be brought about in the intellectual power of the masses to judge of and grapple with the great social questions that confront them. I see in imagination a great nation the millions of whose citizens shall each have clear conceptions of the nature and causes of the natural phenomena presented to him at every turn; such an application of the forces which move both himself and his fellow-citizens that no unwise law can be enacted; such understanding of financial problems that the public of which he is a part shall be quite secure against becoming the victim of rapacity; and such training of the reasoning faculty that the masses shall never be moved to action except by sound reasoning, the force of which they shall be able correctly to judge. This end is not to be attained without many trials, and perhaps many failures in experiment. But every trial, whether a failure or a success, must be intelligently discussed. In all our discussions the end aimed at must be kept constantly in view. We do not propose to form a nation, every citizen of which shall be a learned man, or even a well-read man; but it is necessary that every citizen shall become a careful and correct observer of all that he sees in his daily life, and so good a reasoner, that however unable he may be to trace out the more difficult problems of life, he shall at least be able to analyze his own modes of reasoning, and thus be secure against the acceptance of fallacious conclusions. This end will never be gained so long as we regard correct observation and correct reasoning as subjects for the college and university alone, to be taken up at stated times in a course of education. I therefore hope that the thoughts I have ventured to submit to your

courteous consideration will not be applied to mathematical development alone, but to the mental training of the masses in an enlarged sphere of intellectual activity.

***SUGGESTIONS FOR THE IMPROVEMENT OF THE STUDY PERIOD.**

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Last spring I took charge of a fifth-year class of twenty children in history and geography, with the object of investigating and, if possible, improving their method of study. After spending perhaps sixty minutes with them, I assigned one day a paragraph of map questions which they were to dispose of in class, without help. I was to do nothing more than to call upon someone now and then to "go on," or to "do what ought to be done next."

A girl read the first question: "Here is a relief map of the continent on which we live. What great highland do you find in the west? In the east?" Then she stood silent, staring at the book. She might have inquired the meaning of "relief;" or have turned to the relief map opposite—which was small; or to the better map two pages further over; or to the wall map hanging, rolled up, in front of the class. But altho she was not embarrassed, she did nothing. She was waiting to be directed just what to do, and she waited until aid arrived from me.

In response to the next question, "In what direction does each (highland) extend?" the two great highlands, the Rockies and the Appalachians, were described as parallel; and the pupil was passing to the next question without objections from any source. Again I had to interfere.

"Which is the broader and higher?" was the third question. A boy stepped to the wall map and pointed out the Rockies. But, as no one asked why they were supposed to be broader and higher, I suggested that question myself. Someone gave the correct reason for considering them the broader. But, by that time, the entire class had forgotten that there was a second part to the question, and were passing on. I then reminded them of the omitted part.

The fourth question called for the location of the lowest land between these two highlands. Four or five stepped to the board in succession, showing wide disagreement. Yet no one asked anyone why, or proposed any way of settling the dispute, or even evinced any responsibility for finding one. They would have taken the next question, had I not objected.

"Trace the Mississippi River," was the fifth question. Only about one-half of it was pointed out—i. e., from Cairo southward. But no one entered complaint, and the next question was read before I requested more accurate work.

*From the Fiftieth Anniversary Volume, National Educational Association, 1906.

The girl who read the next direction—i. e., "Name some of its largest tributaries"—stood silent. The word "tributaries" was probably new; but she apparently lacked the force to request help. As nearly as I could judge, she was waiting for me to ask her if she didn't need to ask someone for the definition. So I complied, and the definition was given.

Then all failed, for a time, to answer the original question, apparently because they could not break it into its two parts, first tracing the principal tributaries on the map, then finding the names attached to them.

These responses are representative of my earlier experience with these ten-to-twelve-year-old children. In spite of the fact that they were not frightened, and plainly understood that they were to go anywhere in the room, and do or say anything that was necessary, frequently someone stood ten to fifteen feet from the wall map, straining his eyes to read it, until invited to step forward. And even after answering the single question that was assigned to each during a portion of the time, they often remained standing at their seats, or holding a pointer before the map until directed to sit. They seemed to be wanting in energy to move about freely, to determine when answers were correct and complete, and even to lay aside the pointer and sit down, without assistance.

Yet they were normal children, were up to grade, and had even enjoyed rare school advantages. Nine out of the twenty had attended this school—the Practice Department of Teachers College—from the beginning, and every one of the five teachers that they had had, had been a graduate of a state normal school or of a college, or both, and had been especially trained for teaching. How, then, can their failure to master such a simple lesson as map questions be explained?

The explanation, I think, is found in the peculiar difficulties of studying alone; for I was almost requiring them to get their lessons without the aid of a teacher. Let us consider those difficulties.

When a pupil studies a lesson with a teacher, it is a question of how much two persons can accomplish together, the one being immature, and only under favorable circumstances fully willing to receive and be guided; while the other is much better informed in general, more or less versed in the principles of presentation, and more or less skilled in their application.

In the mastery of text together, the teacher asks questions, pushes the pupil against difficulties, points out crucial thoughts, calls a halt here and there for review and drill, furnishes motive by praising or reprimanding or pummeling, as the case requires, and not seldom grows red in the face from exertion.

Likewise, in the case of developing instruction, the teacher chooses the general topic, breaks it into parts, and then concentrates her ability on her questions, endeavoring to have them short, simple, and attractive enough to make sure bait. And if she is very skillful, her predigested morsels of knowledge may be swallowed and assimilated without pain or conscious effort.

In both cases the teacher is the acknowledged leader. It is she who takes the initiative in determining how the lesson shall be attacked; who exercises resourcefulness in meeting unexpected obstacles; who assumes responsibility for deciding what the crucial questions are, and when the answers are right and complete, and who supplies the energy that makes things go. If she is accounted a good teacher, she is fully as active as her pupils, and probably grows tired first; she is the one who does the work.

Now, eliminate the teacher, and let the pupil attempt to get his lesson alone. It is no longer a question of how much two persons can accomplish together, but how much the weaker of the two can and will do alone.

The work to be accomplished is the same, however, as before—i. e., the assimilation of the topic by the pupil. The means, then, must be substantially the same—i. e., a careful division of the subject into parts, and the putting and answering of questions touching the meaning, relative values, organization, and bearing on life. Therefore, what the two accomplished before—with the more capable one working the harder and doing the greater part—must now be performed by the weaker one alone. He must now duplicate the teacher's task by teaching himself. How different the two situations!

Here is the explanation of the failure of the class mentioned, in spite of the fact that they were fairly endowed and responsive children, and this was their fifth year of superior instruction. For nearly five years they had been establishing the habit of waiting to be told when to step to the board, when to lay aside the pointer, what questions to consider, when an answer was wrong, when something had been overlooked or forgotten, and when they were thru with a task. They were strong as followers, as would quickly have been proved if I had been willing to play the customary part of leader. But they were untrained, for such leadership of themselves as is necessary in study, because they had not been learning to take the initiative, carry responsibility, exercise resourcefulness, and find motive for effort, by having someone else perform these duties for them. Indeed, such help from a teacher as is customary undermines self-reliance and unfits for independent study, altho it may and often does result in a good fund of knowledge.

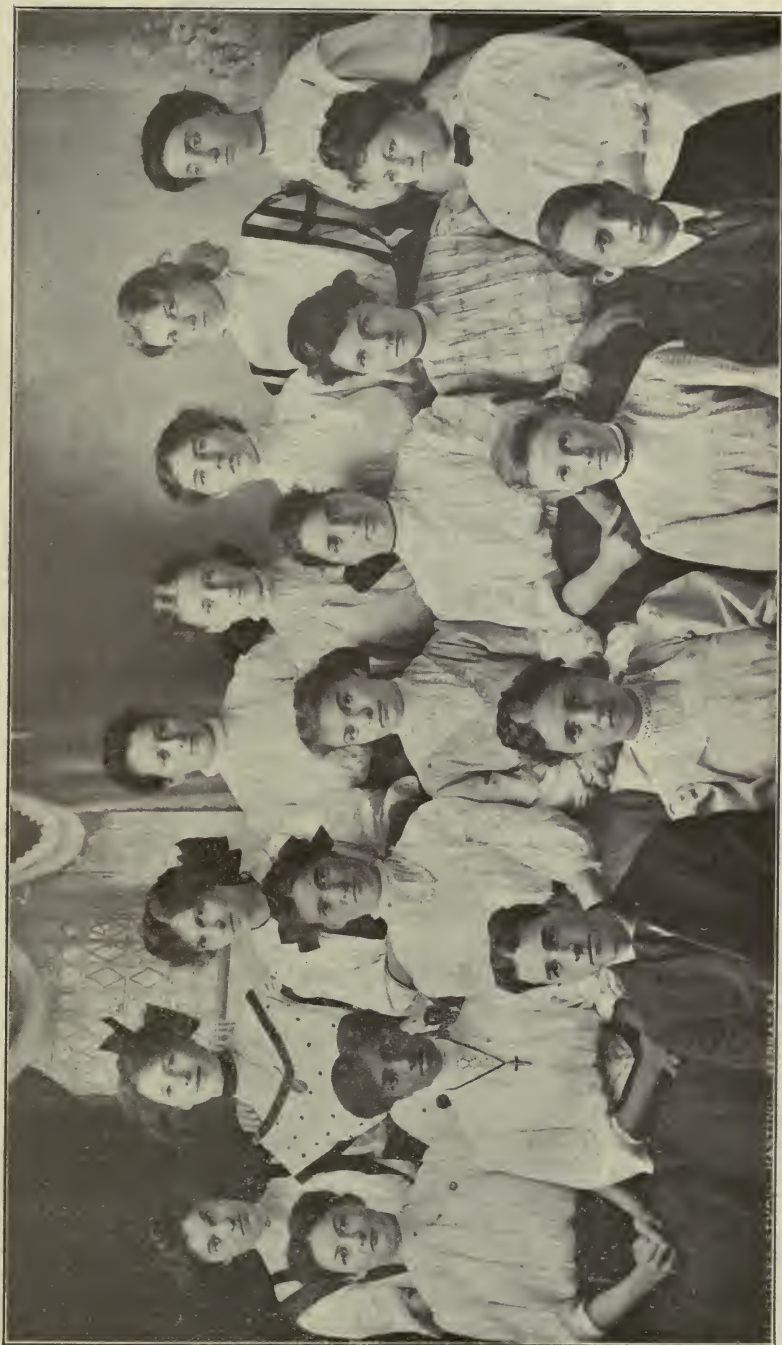
This class, I think, is typical of others. The first change, therefore, for the improvement of study periods must be effected within the recitation itself. That period must accustom children to taking the initiative in the mastery of thought. Outside of school—as in games and conversation—they do this constantly, and always have done it; it is in the school, the special institution for education, where it is wanting. When instructing a fourth-year class in literature one day, I suddenly inquired: "Do you ever stop to talk over what you read?" "No," replied several. "Yes," said a few, "sometimes we do." "All right," said I to the latter. "Let us stop here and stop a few minutes. Eddie, what have you to say?"

"O, we don't talk; the teacher does the talking," remarked Eddie, with a most nonchalant air. How typical of the school! And how lamentable!

To secure this initiative from children, radical reform in the conduct of recitations is necessary in two respects. First, there must be an ability on the part of teachers to keep still more of the time. The teacher is too prominent in the class. And, strange to say, in development work—which seems to be regarded as our highest type of instruction—she is most prominent. One great object of a good teacher should be to show children how to get along without her, and the longer she keeps a class, the less talking and other work she should do, because under her guidance they have learned to do it themselves. How otherwise can they be improving in power to study alone? Second, initiative on the part of the pupils in the mastery of lessons must take the place of knowledge of subject-matter as the primary object of many recitations. It is well enough to recite to a teacher a portion of the time, in order to prove one's possession of facts. But reciting does not usually reveal one's way of getting the facts; it merely tests results. And it is partly because so much time has been occupied in reciting that so little attention has been given to children's method of study. Many recitations—possibly most of them in the elementary school—should be spent by the children in mastering lessons in the teacher's presence, with the aid of her suggestions—not primarily for increase in knowledge, but for increase in intelligence and independence in study. This change of aim might make it advisable to call the periods in general "study periods," rather than "recitation periods"—there is so much that is reprehensible in the latter name. Children would probably know as much in the end—but they would also have far better methods of working.

Now, what are the facts about method of study whose mastery demands so much time? Teachers may be willing to practice silence in class, and to accept initiative on the part of pupils as their primary aim; but until children are very clear in regard to the directions in which initiative is to be exercised, they are likely themselves to be provokingly silent. This problem, touching the principal factors in proper study, is one of the greatest that now confront the teacher.

Both children and college students generally recognize two main factors in study—i. e., memorizing and thinking. And which of these should come first is the first important question to be met. Custom says, "memorizing." "Fix the facts or thoughts in memory, then reflection upon them can follow at leisure," is the common thought. But there are always more duties in life than time allows us to perform, so that reflection is habitually postponed until it is omitted. In consequence, to the great majority of persons, studying signifies mainly the stultifying work of memorizing. Suppose, now, this order were inverted, and young people were taught to undertake the first thing whatever thinking was expected of them in each lesson. They would then at least make sure of the more interesting part. But, more than that, thinking thoughts



NORMAL TRAINING CLASS, HASTINGS HIGH SCHOOL. 1907



NORMAL TRAINING CLASS, WAHOO HIGH SCHOOL, 1907

thru, in the various ways required in good study, is the very best method of memorizing them, and psychologists recommend this method even in the case of verbatim memoriter work. Conscious effort to memorize would then be largely or wholly unnecessary, because the memorizing would become a by-product of thinking instead of a substitute for it. Here is the first great fact to be taught to young people about how to study. And if it were applied, there would need to be less of dull drill in school; one reason for so much of it now is that there is so little thinking.

What kinds of thinking are to be expected is the next great question. The chief factors in reflection must be carefully taught. Let us very briefly suggest a few.

1. In the reproduction of stories by six-year-old children, teachers affect to make the response easy by mentioning definite points to tell about. Children in the second and third years of school easily detect the substance of scoldings received, of conversations, and of paragraphs in their readers, and they determine the substance of paragraphs for short compositions. In development work thruout the primary they are reasonably successful in comprehending the question under consideration, and in holding to the point as the discussion advances. Here there are the beginnings of the ability to group facts into points, or to think by points. This is one of the first requisites for the organization of knowledge, but the extent to which it is lacking in adults is suggested by the tendency of teachers to offer scattered or isolated facts in the studies, and to wander from the point in their conferences. This ability, then, needs to be highly valued and developed. Lessons should often be assigned, or at least recited by points, rather than by pages. Marginal headings should be prepared by children, and they should learn to put their fingers on the spots in the text where the treatment of a certain point begins and ends, thus determining the places where the thought turns, and where pauses might be suitable, for reflection. Also they should verify and improve the paragraphing of the text; should assume responsibility for detecting beginning wanderings of thought in discussion or in text; should receive practice in taking notes, by points, when the teacher reads or talks to them; and should learn so to group their ideas that they could easily number the points that they themselves make, in reciting or in writing.

2. Children somewhat easily detect the main points in a story; they often recognize trivial facts as such in development work; they are keen critics of the value of words in comparison with deeds in the conduct of their teachers and parents; and they are often distinguished for their good sense in their judgment of relative values, just as adults are. Here are the beginnings of a second mental ability of vital worth in study; and it is all the more important that it be developed, since the facts in the three R's and spelling are so nearly on a dead level, and the prevailing conception of thoroughness so magnifies trifles, that the appreciation of relative worths is in peculiar danger of atrophy in the primary school.

Whole recitation periods might well be spent primarily in the culti-

vation of this ability. To that end children might be encouraged to mark their texts, indicating the relative value of different passages by their system of markings. Reciting usually with their books open, in history or geography, as in literature, they should often be asked to begin with the largest thought in the entire lesson, no matter where it might be found; and, if disagreements are noted, the period might be spent in the attempts of various pupils to defend their estimates. They should practice putting large questions, as well as answering them, and should develop skill in selecting the details necessary to the support of a large thought thereby learning to slight insignificant facts. If they are not allowed to mark up their books, how are they to review them without loss of time? And if they do not learn to neglect much of what is in a text, how are they to learn that wise selection of facts which will allow them to make profitable use of reference-books, newspapers, and magazines?

3. Children have such vivid imaginations that they are capable of becoming frightened by their own pictures. When they become interested in a story, it is difficult, even in the kindergarten, to check their expression of suggested ideas; conversations among them are as natural as among adults; developing instruction is based on the assumption that their experiences are rich enough to allow contributions of thought, and fables, calling for interpretation, are especially written for them. Here, then, are the beginnings of a third ability of great importance in study—i. e., the power to supplement an author's thought. The best of authors fail to put most of their ideas into print. Or, as Ruskin declares, all literature—like the story of the Prodigal Son—appears practically in the form of parables, requiring much supplementing to be properly pictured and interpreted. The words in a minister's text in comparison with those in his sermon are perhaps as one to one hundred. The statements in any text should bear a somewhat similar ratio to the thoughts that they suggest in the reader's mind. Accordingly, much time should be occupied by children in school in visualizing in greater detail the scenes in geography, history and other studies; the bearings of facts upon human life should often be traced out with care; and comparisons of many kinds should be instituted. To this end fact questions, testing mainly memory, are out of place; questions involving reflection should be common, if we desire young people to become reflective. And the initiative, it must be remembered, should come from the children. A very common remark from the teacher in the treatment of text might well be: "Do we need to stop here to talk over any matter?" The children should even learn to call a halt themselves, at fitting places, and to offer the supplemental thought without even a suggestion from the teacher. Thus they might be taught how to read books.

Want of time forbids my doing more than merely indicating a few other prominent factors in proper study, by means of questions.

Is it one's duty, in reading an author, to try to agree with him; or

may one disagree, and thus set himself up as a judge? Even six-year-old children are allowed to praise fairy-tales that they like; have they the right of condemnation also? I find many college students uncertain about this whole question.

Should a scholar aim at firmly fixed opinions? Or is it his duty to remain somewhat uncertain, and therefore flexible, in his views?

Again, how is a student to know when he properly knows a thing? Or is he expected to feel very uncertain until the examination returns are seen?

In mastering a lesson or reading a book, should one study primarily for the sake of understanding what is presented? Or primarily to meet the teacher's probable requirements? Or primarily for personal profit?

These are all questions of vital importance in study for all ages of students, and until they have been properly answered, and young people have been properly instructed in regard to them, home study will continue to be a bug-bear, and complaints of teachers about pupils not knowing how to study will continue to be common. We have been on the right track in the past, when we have emphasized the need of careful directions in the assignment of lessons, so that children would know how to go to work. But we were ignorant of the magnitude of the difficulty involved. How to study is very different from how to teach, and even a broader question, I think. And we might as well expect to train persons to teach merely by giving them occasional suggestions about teaching, as to expect to train them to study by giving occasional suggestions about study. Therefore, my main proposition for improvement in study periods is that we begin to take the problem seriously, and go to work upon it. It involves more knowledge about how adults should study than is now easily attainable; it raises the question of the extent to which children can be expected to study; it favors radical reform in the conception of the class period—i. e., as a meeting time for the exchange and correction of ideas rather than as a time for reciting to a teacher; and it requires cultivation of initiative on the part of children to an extent that is now almost unknown.

***BUSINESS MEN'S CRITICISMS OF THE PUBLIC SCHOOLS.**

J. W. Crabtree, President Peru State Normal.

The city superintendent is confronted by two sets of conditions, one representing the direct management of the school, and the other representing the relation of the school to the community. His time and attention has been given largely to the first set of conditions, grading and classifying pupils, making courses of study, arranging daily programs, regulating the conduct of pupils, etc. He has not fully appreciated that from the second set of conditions arises a series of problems

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which must be solved in order to put the school in harmony with the community.

Things directly connected with organization and management have had ample attention, but that phase of supervision which adapts the work of the school to the demands of the community has been less fortunate. The one is learned in pedagogy, the other in society and business. The ability to organize and manage is essential to good, thorough school work, but the ability to adapt the school to the community is necessary to give life to the work, and to secure the most practical results.

The leading men in the community are inclined to look upon the average superintendent as one who has to do with women, children and books, not as one in charge of a high class of community interests. They often ride over him roughshod when he attempts to express views on questions outside of school routine. This is because the superintendent rarely gets beyond the school routine form of supervision. He enters the society of children and of good books a great deal, but knows little about affairs and the society of men.

Pick out the eminently successful superintendents of the state. Why do they stand out as the best? Not because they possess the higher degrees, though scholarship is of the greatest importance, but because they know their schools and the relation of the schools to everything else. They mingle with men. They are men in whom the business sense has been developed, men who study the demands of the material world as well as the demands of the intellectual world. They know what may be termed general interests as distinguished from local or community interests and the amount of attention that should be given to each in the curriculum. They realize fully that every community has its own peculiar conditions to meet and they make the solution of these local problems an important part of their work.

The successful superintendent is an investigator, not only of problems that require the study of books, but problems that require a study of people. He does not and possibly should not send out formal lists of questions to be answered, but learns in his own way what business men, professional men and laboring men expect of the schools, and he knows what value to attach to the views and criticisms of each class and of each individual.

The judgment of leading business men on many phases of school work is exceedingly good. I must admit that the investigation which I have conducted has modified my views on some important questions. There is no class of men whose judgment regarding the work of the school is worth more than that of leading business men except the judgment of the most enterprising and successful superintendents.

The superintendent, above all other men, is in a position to know how the school can best serve all right demands made upon it. He is the only one qualified to make a final decision on those important school questions in which all are interested. It requires the highest type of

mind to do this. The work in supervising a school should require as much executive and business ability as it does to manage and operate any other great enterprise in that community. Just in proportion as the superintendent proves himself equal to the task of fitting the school to all other community interests will he take his station with men placed in charge of large and important business interests.

The purpose of showing the results of the investigation is not so much to discover the defects in our schools as to interest superintendents in studying some of the higher phases of school supervision.

In order to be of greater service to the schools of the state, during October and November of last year an investigation was made as to the efficiency of the public schools from the standpoint of the parent and citizen. Questions of a general nature were sent to ten or fifteen prominent citizens in every county and answers received from three-fourths that number. The following was the list of questions sent out:

To what extent, in your judgment, do the public schools as now organized meet the public demand for education? To what extent should our schools, including the high school, prepare the boys and girls for earning a living? Are the schools meeting this demand in a satisfactory manner? What is the high school not doing that it should do, and what is it doing that it should not?

As the questions were general in nature the answers expressed general opinions and impressions. The data was not in form to tabulate results, though exceedingly valuable for the purpose for which the investigation was made. Some of these leading men passed severe criticisms on the organization and management of our schools as well as on the present methods of teaching. The questions were successful in drawing out whatever adverse criticisms were uppermost in the minds of those answering. Most of these criticisms had to do with methods and the teachers' qualifications. Very few men attempted to point out any radical defects. Possibly the most general criticism was that there is a lack of thoroughness in teaching the essential common branches. On the whole, the investigation showed due interest and just pride in our schools as at present organized. The adverse criticisms were less severe than was expected. The answers were from merchants, bankers, lawyers, physicians, members of the legislature, farmers and laboring men.

In order to get data on the subject assigned for this discussion in form to tabulate results, a new list of questions was sent, in the early part of this month, to 300 business men in various parts of the state. The aim was to get the judgment of those who have young men in their employ, as to whether the schools have a practical value in the preparation of young people for earning their living in the business world. The following indicates the result of the investigation:

Question 1. In the case of a boy desiring to enter your employ would you consider his school record of any value?

The answers to this question were of a very positive nature, such

as "Yes," and "Most certainly." A few qualified their positive answers with this and similar statements: "Provided the school is properly managed." Of the 210 answers the tabulation shows: Yes 207, no 3.

Question 2. Would you give high school graduates the preference over boys who have not taken the high school course?

Some of the typical answers were: "Everything being equal I most certainly would." "That depends on the kind of work done in the high school. Some high schools cause young people to despise honest toil." "High school graduates do not enter my employ except those of least intellectual and executive ability owing to the kind of labor. I would not give them preference for work on the section gang, but I would for more responsible positions." "I seldom make inquiry as to scholarship, but it would be better if I should." The tabulation shows: Yes 197, no 7, don't know 6. Three of the seven who answered "No" employ cheap labor.

Question 3. Is a college education desirable for a business man? Typical answers: "Always desirable." "Desirable but not essential." "That depends on the boy and the college." "Not essential in making money, but important in making life mean more." "Worth as much to a business man as to a professional man." "It is valuable if obtained in early life." "It is likely to unfit a man for business." The tabulation: Yes 150, no 20, don't know 32, no answer 8.

Question 4. Is it advisable to have a business or commercial course in the high school? Answers: "Indeed it is." "The only way to prepare for business." "Yes, if a practical course." "No, because high school teachers give wrong notions hard to break up." "Train the mind of a boy and I will adapt him to my business without a business course." The tabulation: Yes 115, no 33, don't know 41, no answer 21. A number of those answering yes explained that they would not favor a business course in the small high school.

Question 5. What subjects should be emphasized in this course? The answers are not in form to tabulate well. Some answered in a general way, such as "business and commercial subjects," "common branches." The following shows how often each branch was mentioned: Arithmetic 70, grammar and composition 49, spelling 83, writing 80, bookkeeping 83, typewriting 17, shorthand 18, geography 5, civics 6.

Question 6. Which is preferable, a four year commercial course or a three year general course with the fourth year devoted to commercial subjects? Answers: "A complete four year course with no Latin or other language except ours." "A three year general course gives a good education and one year is enough to give to strictly business subjects." "Better still would be a general course with, say, one business branch each year." "The latter is preferable, but why not have what would be equal to a year's work in the course elective so that a boy who expects to leave before finishing the school can get the advantage of some preparation for business?" The tabulation: Four years 23, three years plus one 101,

either 9, neither 5, don't know 27, no answer 45.

Question 7. Would you be in favor of Latin as one of the branches of the general course? Answers: "By all means for its disciplinary value." "Yes, for its value in improving the use of English." "I would, provided it is elective, as there are some who cannot profitably pursue the study of Latin." "I consider it next to mathematics." "I see no value in Latin." "It should be cut out of every school." "I would teach no dead language." The general sentiment seems favorable to the study of Latin. The number given in the affirmative vote includes those who would excuse some pupils from taking Latin. The vote stands: Yes 143, no 31, don't know 28, no answer 8.

Question 8. Would you include German in the list of subjects for a four year commercial course? Answers: "Yes, as a culture study, not as necessary for business." "I would require it of every pupil." "No, I would prefer Latin." Most answers were either yes or no. In some small towns every answer was yes, while in the large cities a majority of the answers were no. The vote stands: Yes 71, no 93, don't know 26, no answer 19. The explanations would indicate a much larger vote for German in a general course instead of the commercial course.

Question 9. At what age should a boy engage in business in order to meet with the greatest success? This question was understood by some to ask for the age at which a boy should begin business on his own hook, while others took it to refer to the age at which a boy should leave school for a business position. The tabulation is made from those taking the latter view: Under eighteen 12, between eighteen and twenty-one 60, between twenty-two and twenty-five 31, between twenty-five and thirty 29.

It will be observed that twelve answers barely give the boy time to finish a high school course, 31 permit him to finish a high school course but hardly give him time to complete a college course, while 29 give him time for a most thorough college training.

Question 10. Should a superintendent or principal seek to inspire high school graduates to continue their education in colleges and technical schools? Answers: "Yes, if the student shows signs of promise." "Yes, if the student has ability, otherwise not." "It depends on the student's ability and desire." "Yes, as the average boy needs any amount of boosting." "That should be determined by the individual fitness, aims and circumstances of the student in question." "Much discretion should be used." "Should not encourage the boy who expects to engage in business." The tabulation: Yes 180, no 7, no answer 23.

Question 11. Students enter the high school at fourteen and fifteen years. Is it advisable to allow them to choose their own studies? The answers are yes, no, and slightly: Yes 27, no 132, slightly 34, don't know 10, no answer 17. Several Lincoln business men voted in the affirmative. Omaha business men give a large vote for fixed courses of study.

Question 12. Is high school discipline more rigid than it should be or is it less rigid than it should be? Answers: Not rigid enough." "The

more rigid the better." "Strong discipline is necessary in rounding out character but need not be autocratic." "Teach my boy obedience and I will thank you." "I would favor a continuation of room government through grade 10 at least." "It is about right." "Self government is the right discipline." "Scholars should have more freedom." "Too rigid for the early ages." The vote stands: Less rigid 86, too rigid 19, about right 75, don't know 17, no answer 13.

Question 13. Mention three or more defects in methods of teaching employed when you were in school. Answers: "I give it up." "The principal defect was in the pupils themselves." "Can't remember so far back." "The same except fewer in number than exist now." Less than half the men answered this question seriously. Of those who did, ten said "too much memory work," six referred to "poor scholarship on the part of teachers."

Question 14. Mention a few of the most prominent defects in the education of high school graduates you have had in your employ. Answers: "Inaccurate in the fundamental operations of arithmetic." "Bad spelling." "Poor writing." "Weak in composition." "Lack of application." "Lack of attention to details." "Not punctual." "Lack of respect for authority." The answers were so varied that no tabulation has been attempted.

Question 15. Does the high school exert the proper moral influence over young men and young women? The tabulation: Yes 95, no 30, don't know 31, might be improved 25, no answer 29. Some of those answering no or suggesting that it might be improved explain in their answers that the moral influence of the high school is on the whole good.

Question 16. Would the fact that a boy smokes cigarettes be a bar to taking him into your employ? Answers: "Would not keep one who smokes cigarettes." "It would not prevent my taking him into my employ, but it would be somewhat against him." "I would influence him to quit or dispense with his services." "Under no circumstances would I have him around." "Cigarette smoking alone would not prevent my taking him." "I have not made a rule against cigarette smoking, but my experience with the cigarette fiend has been such as to convince me of the advisability of an absolute rule against it." Tabulation: Yes, absolutely, 110, yes, to some extent 69, no 3, don't know 11, no answer 17.

Question 17. Are those who finish our schools less accurate in arithmetic than pupils were twenty years ago? Answers: Yes 97, no 63, don't know 41, no answer 19.

Question 18. Are pupils poorer spellers than they were twenty years ago? Yes 110, no 43, don't know 37, no answer 20.

Likely as not the majority is mistaken on this question, also on question 17. There is little doubt, however, but what these subjects are worthy of more attention than is given them.

Question 19. What preparation should be demanded on the part of high school teachers? Very few attempted to answer this question. A majority of those who did answer would demand a college education

with professional training. Several consider a normal school training sufficient.

Question 20. In the main are the public schools making the progress we have a right to expect? Answers: Yes 98, no 19, don't know 53, no answer 40.

Among the general criticisms that were made under the different questions are the following: "The schools attempt to teach too many subjects and to cover too much ground in each subject." "The influence of football and baseball is against good solid school work." "The text books are too advanced." "There is not sufficient drill on fundamental subjects." "Teachers are not capable of bringing out the practical phases of the subjects they teach."

There is the temptation, but not the time to discuss some of the interesting points suggested by the foregoing tabulations. It will mean more, however, to each one to be permitted to make his own summary and form his own conclusions. These results are of the greatest value, in that they are compiled from the views of practical men of affairs competent to speak on these questions with a degree of authority. The results are very similar to a somewhat broader investigation along these lines in New York state, during last year. In both investigations the work of the public schools has stood the test exceptionally well.

To remedy the defects pointed out does not require any radical changes in organization or management, simply a little more thought and skill on the part of teacher and superintendent. The demand for more practical subjects does not seem to be as great as the demand for more practical teachers, teachers whose judgment and experience enables them to lay proper emphasis on the essential subjects now taught. The same thoroughness in teaching the common branches that business men demand is just as necessary for the boy that becomes a college student or enters a profession. On the whole the business men are conservative and reasonable in their criticisms and demands.

However valuable this investigation, it is from only one standpoint, that of the business man. Then again it must be remembered that this is a general view. It would be of still greater value to have tabulations from many points of view. A careful study of both general and community interests on the part of superintendents throughout the state should result in a uniformity of courses and efforts, modified only by the special needs of each community. Further uniformity than this is undesirable. It is therefore of the greatest importance that the superintendent should be keen enough to see the demands of his community, to know its needs, and resources and to take such knowledge into account in all school arrangements. It is important to the superintendent in that it raises him to a higher plane as an educator and as a man among men, important to the community in that the school contributes in a practical way to its needs and most vital interests.

***NORMAL TRAINING IN HIGH SCHOOLS.**

I. A. Downey, Inspector of Normal Training in Nebraska High Schools.

PURPOSE. As stated in Section 24 of the enactment which authorizes normal training in the high schools of Nebraska, the purpose is to give teachers an opportunity to meet the requirements of the law which bars the issuance of the first and second grade certificates to applicants who have not have had a certain stipulated amount of normal training. I have no doubt that were this the only end to be conserved, we would all agree that both the act, which requires normal training as a requisite for securing a certificate, and the act which authorizes normal training in high schools, should be speedily repealed. Happily, this is not true. Normal training in high schools is a means to a far more important end than that of enabling applicants to receive certificates to teach. The real purpose is to equip prospective teachers with a degree of scholarship and a knowledge of methods, with skill in their use, which will greatly reduce the possibility of failure on the part of beginning teachers, and at the same time increase the proficiency of those who do not fail utterly.

NATURE AND SCOPE OF WORK. If this statement of the real purpose of normal training in high schools be a correct one, the first thing to be determined is the nature and scope of the work to be done. The statute provides as follows:

"The course in normal training shall be elective and shall consist of the three following lines of study:

"A. A review for at least nine weeks in each of the following subjects: Reading, Grammar, Arithmetic and Geography, to be given not earlier than the eleventh grade.

"B. The study of American history for at least one semester in the eleventh or twelfth grade.

"C. At least 72 periods of professional training to include a study of methods, school management, observation work," etc., etc.

"D. Elementary agriculture, if not included in the regular course."

SCHOOLS THAT MAY GIVE NORMAL TRAINING. In order to give the normal training contemplated in the act referred to above, a high school must comply with the following general requirements: First, it must be accredited to the University of Nebraska. Second, it must have at least two teachers exclusive of the city superintendent, who shall give their entire time to instruction in high school branches. Third, it must have a reference library of at least three volumes on each of the following fields of professional study: "History of Education," "Principles of Education," "Methods and Special Training in Industrial Education, including Agriculture." Fourth, it shall teach a class of not less than ten students.

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NUMBER OF SCHOOLS APPROVED. The state department notified 106 high schools (at least one in each representative district in the state) that applications for permission to do normal training work would be received up to and including a certain time, the necessary qualifications being given. Of the number that responded, 64 high schools accompanied their applications with a showing that seemed to justify the department in approving them for said work for the current school year.

FURTHER TESTS AND REQUIREMENTS. That these schools may better understand what further tests and requirements must be met in order to receive a portion of the appropriation for normal training in high schools for the school year 1907-8, it seems wise to give the following statement: Efficiency and thoroughness will be our motto. The work of each school will be carefully inspected. The teachers in the various departments of normal training work must possess unquestioned qualifications to do the work. The requirements as to the teaching of the underlying principles as well as the subject matter must be fulfilled. The observation work must be well done and desired results must be secured. The outlines of the various subjects which have been prepared by the educators of the state must be closely followed. The students must meet the tests of examinations which will be conducted by the state department under the rules governing the examinations for teachers' certificates. The questions for these examinations will be based upon the outlines just mentioned.

AN IDEAL. This normal training is to be a teacher-making process and it should be the aim of every school doing the work to make each student in this course the possessor of a first grade county certificate at the time of graduation. The grades earned in the examinations referred to in the above statement, if not too low, will stand to the credit of the students earning them to apply on a county certificate. But since the normal training course covers but seven subjects, it will be necessary for each student to earn a passing grade before the state committee in twelve other subjects in order to secure a first grade county certificate.

It will be the part of wisdom for schools to induce their students to be examined in at least a part of these subjects in the junior year to the end that the work in the senior year shall not be too heavy. However, if we are to reach our ideal of a county certificate in the hands of each normal graduate at the end of the present school year, many students will find it necessary to take all of the examinations during the senior year. This, however, should not be done if it will entail too much work upon students who are already heavily burdened. Better let them go out and teach on a lower grade certificate next year than to break them down physically this year.

It may be suggested that the possession of a first grade county certificate at graduation is too much to expect of the average student. In reply to this possible suggestion, permit me to say that the high school of Dakota City, Nebraska, even in the absence of a normal training course,

makes the possession of a county first grade certificate a condition of graduation. So also does St. Catherine's Academy at Jackson and St. Mary's Academy at O'Neill. What has been done can be done. What is being done in an eleven grade school can be done in a twelve grade school.

WHAT FAILURE MAY MEAN. The failure of any considerable percent of the students in any school to earn passing grades in the seven subjects required for normal training, while it may not affect that school's right to share in the appropriation for the current year, will endanger its chances for approval for normal training work during the following year. To aid schools to guard against the possibility of such failure, I wish to commend the following suggestions: First, the work in every subject should be presented by the teacher best qualified to give it. Second, sufficient time should be given to each subject to complete the work thoroughly and in accordance with the outline submitted. Third, the professional work should be so well presented and the observation work so extensive and well supervised that students may secure not only a splendid pedagogical equipment, but also such a conception of the importance of the teaching profession as will enable them to enter it with the promise of a fair degree of success.

TIME TO BE DEVOTED TO REVIEWS. I am convinced that nine weeks is entirely too short a time to make a thorough review of any one of the four subjects to be reviewed. In fact, twelve weeks seems quite short enough and eighteen weeks not too long.

Educators who have been doing work in secondary schools, only, may question my judgment in this matter, but those who have been intimately connected with work in elementary schools and who, therefore, better understand the need of more thorough instruction in the common branches, will accept the statement without question. In times past, too much time has been given to subjects which have been regarded as giving the best results in mental discipline, and, because of this fact, much that has been regarded as being indispensable in a high school course is in disfavor with the mass of the people who are constantly crying out for something more practical. To remedy this condition our secondary schools, which should be as much the schools of the people and for the people as are the elementary schools, must be made to conform to this popular demand. Statistics of our own state show that in recent years, of every 23 graduates from our high schools, 6 enter higher schools, 8 enter at once into business or professions other than that of teaching, and 9 enter the teaching profession. In the face of these facts, it seems very unwise to bend all of our energies in the direction of securing university credits rather than to the giving of a practical education, for in the first instance, but 6 people are specifically benefited, while in the second 17 people are prepared for the serious business and strenuous activities of life. The writer has no disposition to hinder the promotion of higher education. In fact, he knows that if a larger per cent of our students could be induced to pursue studies in higher institutions, before

entering upon business activities, the best interests of the state at large would be conserved, but since we are dealing with stern facts, we should arrange our high school course to meet the conditions which result from these facts. In this connection I wish to quote Fasset A. Cotton, State Superintendent of Public Instruction of Indiana, who, in discussing this phase of the problem of education, said:

"The only simple, rational basis of solution is to plan the work with regard to the needs of the masses instead of the needs of the few. In other words, in both town and country the school work is to be planned so as to prepare life, instead of preparing for some advanced school. Education for every child should be complete at any period in the course. That is, every child, at any stage of its advancement, should be all that it is possible for it to be at that time. Education which prepares best for life ought to prepare best for advanced work. And in preparing for life education is to be life. It is to let the child live joyously in his work. We have been trying all these years to fit the child to our theories, instead of fitting our processes to the nature of the child."

For a review of American history, one semester may be adequate, and while it is permissible to do this work in connection with your regular class in that subject, it seems hardly advisable since we are to teach method as well as subject matter. However, it might be well to reverse the statement and say that it will be advisable to do the regular class work in this subject in connection with the normal training work. This will require the regular work to comply with the normal training requirements and will at the same time be a means of culture to the students who are not taking the normal training course. It should not be forgotten that for one semester's work in review of American history, the University gives one credit, and for two semester's work, two credits.

The 72 periods of pedagogical work required may be crowded into one semester, but doubtless more thorough work will be done if this teaching shall occupy the greater part of the senior year.

All of the work in this course is important, but since ours is strictly an agricultural state, too much stress cannot be put upon the importance of the work of teaching elementary agriculture. This subject would better not be taught at all in our elementary schools than to be poorly taught. In fact, very few teachers in our high schools are well qualified to teach this subject and fewer schools are well equipped with the necessary apparatus and facilities for experimental and observation work. There is no room in a paper of this character to give a list of the necessary equipment for laboratory work, and I can only refer you to the list given on pages 140 and 141 of the Biennial Report for 1906, and to suggest that homemade apparatus which will answer the purpose of experiments will be approved. Professor Alvin Keyser, Assistant Agronomist of the University of Nebraska, in a discussion of the value of experiments made with simple apparatus said:

"I am convinced that the simpler the apparatus and the more evident

the demonstration, the greater the interest in the subject, and the more thorough the result obtained."

This is a very happy statement of a well known principle in education. A full year is necessary to do the work in agriculture well, but one semester is the minimum that will be required.

REQUIRED NUMBER IN CLASS. As has already been noted, each school must have a class of not less than ten students. The presumption is that these students shall enter upon this work in absolute good faith and with no other purpose in mind than to equip themselves for the teaching profession. There is no place here for a student who is merely striving to earn a high school diploma and who may select this course because of his inability to complete the regular course. The failure of any student to take the examinations in the seven subjects regularly conducted by this department will be accepted as an indication that he is not a bona fide student in this course, but is, instead, a spurious article.

PROBABILITY OF SUCCESS. Normal training work in our high schools must succeed. It has been successfully done in the state of New York for 75 years and it can be done in Nebraska. It can be done, too, without weakening the high school course. On the contrary, it will in time strengthen the course and bring it to the same recognition in higher institutions that it has heretofore enjoyed. In addition to this it will ultimately, not only increase the attendance at the state normal schools, colleges and universities, and exalt and dignify the work of those schools, but it will also increase the attendance and raise the standard of the efficiency of the students in these higher institutions. This will be true because of the fact that these teacher-preparing schools in the future will be instructing students instead of pupils, thus raising the course from an academic to a collegiate one. The funds received and the experience obtained by those who enter the teaching profession direct from the high schools, will at once make it possible for them to enter higher institutions and make of them the highest type of students. Many able educators could be quoted in favor of this work, but I shall be content to give a statement from two.

President J. W. Crabtree, of the Peru State Normal, in the last issue of the Nebraska Teacher, made use of this statement:

"Normal training in the high schools means everything to the country schools. Districts should make an effort to get teachers who have had a more thorough course of training than can be given in the high school, but the normal schools do not send out teachers for half the places that must be filled. The high school gives a much better preparation than was given by the average normal school of two decades ago."

Prof. A. H. Waterhouse, Principal of the Omaha high school, who has already demonstrated the possibility of the success of this movement, said in a report to the state department:

"I am quite enthusiastic over this matter now, and feel that the various subjects are in charge of people who will so make them their burden as

to work out as good courses as prospective teachers can get anywhere in the same time."

Fellow educators, let us go at this business as if we were confident that the continued happiness and prosperity of our people, the perpetuity of our state and nation, and the destiny of our posterity depended upon it, and success far beyond the hope of the most sanguine will crown our efforts.

***NORMAL TRAINING IN LINCOLN**

Margaret, Hall.

The plan of work for this first class was necessarily tentative, as the bulletin from the state superintendent's office, outlining the course, had not yet been issued. The first semester, a seventy-minute period was devoted each day to the study of the principles of teaching, and the young women in the class were urged to take as many reviews as possible in the regular classes in arithmetic, grammar, history, etc. To get some *Read before the Superintendents and Principals' Association, Lincoln, October 24, 1907.

basis for my plan of work, I had required the class to answer a list of questions. I asked them to state honestly and definitely why they had registered for the work, what practical good they expected to get from it, what their conception of teaching was, their ideal of teacher, and what sort of teachers they thought rural schools should have. Some of the young women were terrified by the questions. An entirely new point of view was required and a side of teaching was presented, quite different from that with which they were familiar as pupils. Most of the girls had thought of the class merely as preparation for passing the examinations for certificates. They dreaded the examinations and had an idea that their certificates would be assured them and the whole difficulty settled if they but registered in this class. I, on the other hand, had considered the class valuable primarily as preparation for teaching, thinking that after eleven and a half years in the city grades and high school, the young women should be able to pass examinations without trouble. I referred the matter to Dr. Sanders, asking him whether I was to try to prepare the class to teach, or merely to pass examinations. He directed me to prepare them to teach, and so from the first in the review classes, as well as in the teachers' class, the emphasis has been placed primarily upon the subject itself and upon the teaching of the subject rather than upon the examinations.

Our normal course has been extended each year until now it includes full-semester reviews in all the required subjects, a class in agriculture, and also two semesters of instruction in teaching, including pedagogy, observation and reports, special methods, school management, lesson

In December, 1905, Dr. Sanders responded to Mr. McBrien's appeal for normal training in the high school by arranging for a "teachers' class" for the next semester.

planning, and some experimental teaching. This two-semester class we call the "teachers' class" to distinguish it from the review classes.

Since I have the teachers' class and the reading and geography reviews, I can discuss them more in detail. The other reviews are in the hands of competent special department teachers who, in addition to giving a thorough review of the subject, lead the young women to approach the subject, as far as possible, from the teacher's standpoint. Whenever possible members of the class are allowed to conduct the class or instruct individuals who have missed explanation.

The first semester of the teachers' class is devoted to general or introductory work intended to change the attitude of the members of the class from that of pupils to that of teachers, to give general principles of teaching so the young women may observe and receive later instruction in methods, etc., more intelligently; and finally to generate the true teaching interest and spirit.

The first six weeks are devoted to a rapid survey of the history of education through class talks and lectures. National conceptions of education and the influences determining the quality of educational activity in a country, are considered; courses of study are criticized; noted educators are introduced and their ideas and theories studied. At first the class are inclined to object to this part of the course, thinking it too remote from their immediate need as they see it; but the final results have always been so satisfactory that I should consider it a decided loss if this part of the course were dropped. One young woman who objected vigorously at first declared at the close of the six weeks that she considered the survey of the history of education excellent preparation for the work which would follow, closing with the remark, "I have always before thought of teaching merely as a money proposition. I am now so impressed with the responsibility of the teacher that I hardly feel worthy to undertake the work."

Our young teachers certainly need to have an interest in education for its own sake, and should be impressed with the importance of right methods as early as possible. They should also have some acquaintance with the noted educators and their theories. Why not give them all this at the beginning of the course as a means of preparing the ground, as it were, for the special work of the course, and of bringing the class into the right attitude toward their new work?

The remaining twelve weeks of the first semester are devoted to the study of the general principles of teaching and to observation. We have a good teachers' library. A list of readings has been prepared on such subjects as "Memory," "Interest," "Habit," "Perception," etc., and the class are required to read at least two authors on each subject. These same subjects and others are explained and discussed in class, especial emphasis being placed on the practical application of the principles. During this time the class are observing at least one period a week in the city schools from the kindergarten up. The reports of these observa-



NORMAL TRAINING CLASS, FAIRBURY HIGH SCHOOL, 1907



NORMAL TRAINING CLASS, TECUMSEH HIGH SCHOOL, 1907

tions are given orally at least once a week and have been enthusiastic, interesting, and intelligent.

The second semester is devoted to more special work—to readings and discussions on school organization and management, and qualifications of the teacher, followed by a close study of methods in reading, arithmetic, grammar, geography, and spelling. At the same time the class are making special observations. When geography methods are being studied, observations of geography lessons are being made and reported.

Lesson plans, some presentation, examination of text-books, and the writing of letters of application are features of this work.

We have a full semester for the reading review. Sherman and Reed's Essentials in the text-book studied. In addition to this we study the art of story telling, and review the classics which might be read in the rural schools. "The Courtship of Miles Standish," "Hiawatha," "Evangeline," and other poems are reread and practice is given in adapting parts to the understanding of the fifth and sixth grades. The poems are closely scrutinized for the possibilities they hold for young pupils. Practical conclusions are drawn from a rereading of the classics from the teachers' standpoint. The class found that "Hiawatha," for instance, contained almost unlimited material for language lessons, oral and written; for visualization, and for exercises in expressions through drawing.

Assignments and lessons are planned, and ten-minute lessons on sections of the poem or sketch, the aim being to make the reading as interesting as possible in the short time allowed; and by a wise selection of points, to stimulate the pupils to read intelligently for themselves. As yet these lessons are crude, but the class are appreciating more and more the child's point of view.

We plan also to study lists of examination questions, largely to suggest the points in reading which a teacher must consider.

In the geography class, in addition to the regular review work, special credit is given for the preparation of good geography, note and scrap books. We have access to a great many excellent books and periodicals from which the class take notes. They also make clippings from good sources, the purpose being to accumulate as much interesting material as possible to supplement the text-books used in the rural schools in which the members of the class may teach. This arouses in the members of the review class a genuine interest in geography.

The University draws so largely from our senior class that our teachers' class necessarily smaller than it would be in a much smaller town. What we lack in quantity we more than make up in quality. So far our prospective teachers have been drawn from the most earnest, most intelligent, mature, and, fortunately, the most refined and attractive young women in the school.

***NORMAL TRAINING IN BEATRICE HIGH SCHOOL.**

Emma Wilhelmson.

Our interest in high school normal training is no longer merely theoretical. After having given it one year's trial, we can now discuss it experimentally. Before registering any student in that course we ask her the question: Are you going to teach when you finish high school? And only such as answer in the affirmative, and who are not under 16 years of age, are admitted to this course.

The normal branches are taught in the eleventh and twelfth grades. No pupil can register for a normal study who has not completed tenth grade work.

As mapped out in our course of study, copies of which have been distributed among you, we have three regular courses in high school—Commercial, Latin, Scientific and English-German, and beginning with the eleventh grade, the normal course may be elected by prospective teachers.

Each normal branch is carried eighteen weeks, or one semester, except American history, which is carried a whole year, and by devoting that length of time to each, the pupils are able to review the subjects quite thoroughly, receive instruction in methods of presentation and observe methods of instruction used in the lower grades.

In all the normal branches we try to follow as nearly as possible the outlines of the various subjects as prepared by the special committees appointed by the state superintendent last year.

In reading we use "Sherman and Reed's" text as a basis for study, besides covering as much as possible of American literature. In connection with the study of methods of teaching beginners how to read the class visits the primary grades and observes the instruction given there. In preparing any selection for a reading lesson, each pupil is expected to prepare in such a way as to be able to conduct the recitation if called upon to do so. Students are frequently required in the study of any poem or prose selection to outline a model lesson on that selection.

Each member of the class is required to read Sarah Louise Arnold's book on *How to Teach Reading*.

Though not one of the required essentials, we have a half year's review in physiology for the purpose of broadening the outlook in that subject. A great many simple experiments are made, such as any teacher might do in a district school.

In grammar we aim to give a thorough review of the subject, using Hoenshel's text for a skeleton. The pupils are required to inform themselves regarding the opinions of the five or six other grammarians whose texts may be found in the reference library. Above all, they are urged to help pupils form the habit of always speaking grammatically. At different times the student is called upon to conduct the recitation, after

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which her methods and plans are discussed and criticized by the class. Every few days it is announced to some pupil in the class that she is expected to conduct the class in grammar the next day. And here is where she may turn her plans and theories into realizations. Suppose the lesson in about infinitives. The pupil-teacher must look up the subject in all the reference grammars we have. Then she is directed to plan carefully how to develop the subject, going always from the known to the unknown, and must present it in a forceful and logical manner. The work in the grades is also observed and using the Nebraska course of study as a guide we make a plan of the work for the lower grades.

At the regular quarterly meetings, held by the city grade teachers, the work of the following quarter is discussed and model recitations in reading, language, arithmetic, geography, etc., are conducted by some of the best teachers in the city schools. Our normal classes are permitted to attend these teachers' meetings and there gain a great deal in the line of methods and devices.

The normal arithmetic work is a half year's thorough review of the subject, and instruction in the best methods of presentation. Devices are shown to give the class suggestions for their prospective teaching.

A thorough course in American history is carried during the whole of the senior year. The Source Method is used, including a great deal of note book work, outlining and writing of papers.

The course in geography is intended to be a review of physical, industrial, commercial and political geography, their relations to each other, together with methods of instruction; how to handle globes, maps, conduct field excursions, etc. The pupil is trained to trace the cause and effect of every geographical condition. In our equipment we have weather maps, topographical maps, models, atlases, political maps, geological specimens, globes, etc.; also a stereopticon lantern. The city library is well supplied with reference works on geography and travel. In visiting the grades the students are required to notice the method of presentation, including all the little devices, such as sand tables, produce maps, etc. We also study the plan for the grades as outlined by Dr. Condra in the state course of study. We notice the correlation of geography and nature study throughout the course and particularly in the lower grades, where no text-book is used.

Agriculture not being in the regular course of study, is a new subject for the class. We use Burkett, Stevens and Hill's Agriculture as a text, but also refer to Bailey's Principles of Agriculture, and Bessey, Bruner and Swezey's text. Our city library has a great many pamphlets and magazine articles on various agriculture subjects, to which the pupils are constantly referred. We have also the farmers' bulletins from the agricultural department. Our school is not yet equipped for as extensive laboratory work in agriculture as the committee suggests, but a great number of the simpler experiments and observations are made in connection with the study of the soil, plants and their diseases, insects,

field, farm and orchard crops.. We have access to the equipments of the chemistry, physics and botany laboratories. For instruction in presentation of the subject, the pupils study the outline in nature work as given in the state course of study.

The work in pedagogy is a half year's course in school management given by our city superintendent. White's Elements of Pedagogy is used as a text. The professional instruction includes a study of the theory and principles of education, methods of instruction, management and discipline of grade and district schools, together with systematic observation work followed by discussions.

The last half of the senior year we are going to let the members of the training class spend about an hour each day for about a week in some of the lower grades, observing the teacher's methods and assisting her, if possible. Then under her guidance and direction the student-teacher will be given a chance to present subjects for about an hour each day for a week. Since there are about twenty of the lower grades within easy reach of the high school, no one grade teacher will need to be burdened with more than two and most of them with only one student-teacher during the half year, and then for only about an hour each day for about two weeks.

This is a synopsis of what we are doing in Beatrice, and we believe that our normal training students are receiving just as broad a general education as the others, and in addition are receiving a professional training, so that the boys and girls who come under their charge will not lose the time they otherwise would lose if their teachers had made no special preparation for their work.

***NORMAL TRAINING—OUR WORK AT BROKEN BOW.**

J. M. McIndoo.

Without any attempt at being exhaustive, it is hoped that the following outline will prove sufficiently comprehensive to give a general idea of normal training as it is being given and as it is planned to be given in the Broken Bow high school.

It has been the endeavor to plan the course of study so as to harmonize the requirements of the State University with those of the state department for normal training. Some shifting of subjects had to be made, but none detrimental to the best interests of the school. The subjects comprehended in the normal training work appear in the course as follows:

Agriculture is given during the first semester of the eleventh grade; geography and reading are given during the second semester of the eleventh grade, nine weeks being given to each subject. All members of the eleventh grade take agriculture and the class is not sectioned in this work. All members of the grade take geography and reading, but the

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class is sectioned, those in the normal training work pursuing these subjects from the standpoint of the teacher, while the members of the grade, not in the normal training work, emphasize the subject matter with no reference to methods of teaching.

American history is taken up during the first semester of the twelfth grade. The class is not sectioned and the entire time is devoted to subject matter, so that the class may do fully the work required by the State University. The method work in history is given to the normal training class in connection with their study of methods in the various branches. The outline as given in the normal training bulletin is followed, as it is also in the other subjects in the normal training work.

Arithmetic and English grammar are both taken during the second semester, these subjects being pursued as separate parallel studies, and each running for eighteen weeks. The class is sectioned in both subjects, the same plan being pursued as in geography and reading. Those not in the normal training work take these subjects each five times a week, but those in the normal training work give a part of the time to observation work and practice teaching, perhaps once or twice a week as conditions may demand. A part of the time could be taken from one subject for observation work and a part from the other for practice teaching.

A Brief Outline of the Work in Pedagogy as it is Given in the Broken Bow High School.

Since educational principles are based on psychological facts, no better foundation can be laid in pedagogy than to give some attention to a study of psychology, not an exhaustive study, but a brief consideration of the elements of the subject.

The first three weeks are devoted to a study of the elements of psychology as given in White's Pedagogy. My last year's class did this work successfully as did, also, this year's class.

Following this work a study of the theory and principles of teaching is taken up. This work continues for about six weeks, during which time the class are thoroughly grounded in the theory and principles of teaching. White's Pedagogy and Art of Teaching are used as texts, with constant reference to the pedagogical library. In this connection a word might be said about our pedagogical library. We have recently purchased about thirty-five volumes of reference works on pedagogy alone. About twenty are for general reference work in pedagogy and fifteen for special reference. I am making myself familiar with this library, so that I can intelligently direct my students in its use. I am having them do a little collateral reading each day on the topic under consideration. I have two objects in view in this work; to get additional information on the topic under consideration, and to cultivate a taste for professional reading.

After a study of the theory and principles of teaching, about three weeks are devoted to a consideration of district school organization and

management, using Seeley's New School Management as a text, constantly referring to White's Management and other reference texts.

While doing the observation work last year, incidentally we did some practical work in management. Without detracting from the work in observation pupils took notes of how the teacher managed her room. This I found very helpful in fixing in a practical way the theories they had been getting in their text book and class room work. I shall follow a similar plan this year.

The last six weeks of the first semester are given to the study of methods in the various branches, followed by observation work in each branch. This work will be continued once or twice a week during the second semester; oftener if conditions demand it. The work in practice teaching will be given during the second semester. Practice teaching in any subject will follow the observation work in that branch.

In the observation work the following plan will be followed: The teacher will be selected for the work for which she seems best fitted. She will be assigned the work a sufficient length of time to give her ample time for preparation. The student-teacher will also be given special preparation for this observation work. All this work is to be carefully reviewed and discussed, with the model teacher present to assist in the study of the aim and general plan of the lesson previously observed.

At least two visits will be made to the rural schools by each member of the class. This work will be preceded and followed by a careful study of the rural school. In the practice work the student-teacher will conduct from three to five recitations. This will be done in part in the grades under the supervision of the teacher and in part with small classes chosen from the grades and taken to a separate room. The student-teacher will sometimes be given charge of a high school class. Not so much emphasis will be placed on this kind of practice teaching, however, as is placed on grade teaching.

In all the above work the end will be kept in view from the beginning that the student is being prepared to teach rural school work and possibly grade work.

***THE PLAN AT YORK.**

Elizabeth Hawxby.

William Hawley Smith says that the pupils entering the high school are old enough to know what they want to be when they are men and women. While there are many exceptions to Mr. Smith's view, most of the pupils have some idea as to whether they expect to teach after finishing the high school. Since there is so much ground to cover and so many branches to be taught in a course in normal training, it is necessary that some of the subjects be given in the first and second years of the high school.

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The plan in York is to have a separate course in normal training, so that a pupil entering school may elect this course, just as a Latin course or a scientific course may be chosen. In the earlier part of the normal training course are placed those subjects which can be mastered most easily at this time. Agriculture, physiology, bookkeeping and physical geography are taught during the first and second years of the high school course.

The reviews proper are placed in the eleventh grade. As far as possible the semester plan is adopted, and the subjects are taught by the heads of the departments. The history teacher devotes two semesters to American history and so it is with all the important common branches with the exception of grammar, and we do not consider it necessary to use a semester in this case, as the English course is so planned that every boy or girl graduating from the York high school must have more than a semester's work in English grammar. The first year, or preparatory students, study grammar for half the year. Twelve weeks' grammar review is given to the second and third years' classes.

Since the semester plan is used for the heavier branches, the minor subjects are very conveniently taught by one teacher, who spends a semester on geography and the remainder of the year on drawing, spelling, writing, etc. The object of the work done in the junior year is to give the pupils a thorough grounding in the common branches.

A year in the twelfth grade is devoted to pedagogy, methods and history of education. Five or six weeks at the beginning of the year are spent on psychology. In this work the pupils get some idea as to the development of the faculties of the mind. They learn ways in which the memory may be cultivated, the imagination developed and something of the importance of training, even the youngest pupils, in the habits of attention and concentration of thought.

The methods of the various subjects are next taught. In reading, for example, the pupils study carefully and discuss in the class the methods given in the two texts used for this purpose—White's *Elements of Pedagogy* and Sherman and Reed's *Essentials of Teaching Reading*. A number of references are assigned to them to read. The works of Dr. Clark of the Chicago University are, among many others, of excellent help in this particular branch. Especial attention is given to the primary methods, because if young teachers fail in teaching reading it will be largely from ignorance in managing the lower grades. We all know how essential it is that a pupil be started properly. The seniors listen to a careful explanation of the methods used by the primary teachers in York before they begin observation work. A number of the text books used in reading are taken to the pedagogy class and are examined. In this way the trainers are brought into closer touch with the teachers and pupils whom they are to observe. Two periods a week are spent in observation. The pupils go to the grades in the spirit to get all the good they can while there. They are to see the cause and

the result for every step and condition, and the next day each observer comes to class with his notes ready to make a report of what he has seen and heard. At the end of the year he will have in this note-book, as well as in his head, most helpful suggestions and devices which he will appreciate when he is thrown upon his own responsibility in the school room the next September.

The most gratifying thing in the normal training work is that one finds an excellent set of sincere students. They are willing to work. They thoroughly enjoy the observation work and show their interest by their well-prepared and enthusiastic reports.

The cadet work planned for them is often quite strenuous when taken in connection with their school work. Yet they are delighted when the relative of some grade teacher gets married and calls that teacher away from her schoolroom for a few hours or a day, for this means that one of them will get to teach in her place.

The trainers not only do the work of the absent teachers, but each one does some assistant work during the year. Their work in the common branches of the junior year has amply prepared them to aid some teacher who needs help in correcting papers. Where individual instruction is needed and the teacher has not the time to bring up the weak or backward pupil, he is given over to one of the senior cadets, who, for the time being, becomes a Batavia teacher and works with that pupil until he is able to do the work as well as the average in the class. During the busy times in the kindergarten and primary rooms the teachers frequently send for one of the trainers to assist in the busy work, the games or the music. In this way the seniors get the best kind of practice, as they are guided and directed by experienced teachers.

There are other features a teacher should master before he goes into the schoolroom. Two are a knowledge of picture study, and the ability to tell stories well. So a little time is devoted in the senior year to the study of art with a view to enable seniors to use pictures skillfully in the teaching of language, geography or history. Also for an aesthetic reason they study pictures—to help them to enjoy the beautiful and to make them desire to know more about the great masters of art. What they really enjoy and appreciate themselves they will wish to give to others.

The story-telling plan is this: Pupils are assigned stories from the books of Kate Douglas Wiggin, Thompson Seton, or other good writers. These stories they learn to tell well by practicing at home on their little brothers and sisters. On certain days the stories are told to the pedagogy class, the students for the time being imagine themselves first grade or sixth grade pupils as the story may demand. This class is the work shop or the training room, so the criticisms are given here. Later the pupils are granted the privilege of telling these stories to the grade children. They need no coaxing for this work. In fact, they seem to think it is one of the greatest "honors thrust upon them." Last year

one of our largest boys in the training class told one of his stories in a primary room and he held the attention of the little ones so well and told the story with so much animation that the grade teacher said she felt he deserved first place among all the cadets who came to her room that year. The boy who is able to do this can certainly make things interesting for the little beginners in a country school. Frequently the trainers find these stories of benefit to them while teaching in the place of an absent teacher. After the plan of work the teacher has left has been completed, there may be a few minutes remaining before time for dismissal. The substitute is not at sea to know how to use the time, for he can tell one of his stories. If he chooses to tell Edward Everett Hale's "The Man Without a Country" to a seventh or eighth grade class he will surely sow seeds of patriotism in the heart of some boy. If he tells well to a primary grade Kate Douglas Wiggin's "Mrs. Chincilla," the worst boy in school will not throw a stone at a cat for at least a week.

A teacher who is a graduate of a good school rarely ever fails because he has not book-knowledge enough. It is because of ignorance along other lines; lack of energy, no tact; originality wanting; so we strive to make the trainers feel that back of all their school work is the individuality. A device which they have planned themselves, which suits the occasion and the demands of their class, is better than one learned from a book.

Yet young teachers are often ignorant as to where to find the most helpful things. They are willing to work and would read the good thoughts of this writer, or that, if they only knew where to get them. So a list of the best magazines and school papers are given them with the publishing company. Also lists of the books that will aid picture study, methods, story-telling and morning exercises. As the teacher is usually expected to choose the new text books, it is well for the seniors to know what books are the best to use in the various subjects.

These things on the aside are brought in through lectures given by different persons. At the close of the year, the pedagogy students know how to apply for a school; how to approach the school board; how to prepare for the first day of school, and what to do on that day; they have some good ideas as to the care of the school grounds, and the decoration and care of the schoolroom. We hope to make this lecture course one of the beneficial things in the normal training work. You can help us out along this line. When you come to York, meander down the halls of the high school and you will be "grabbed" and taken into the pedagogy class to talk to those seniors.

***WHAT HOLDREGE IS DOING.**

C. W. McMichael.

What is Holdrege doing? Holdrege is in line on the question of normal training as she is in every other advance movement, not only in educational lines, but also in commercial and industrial pursuits. That Holdrege has the largest normal training class in the state, is a boast that we make with all humility, yet with a feeling that it is no small thing to be first in Nebraska in anything, even if only in numbers. This result was not attained simply for the asking but only by the hardest kind of work. What were our difficulties? Lack of interest in the subject, an absence of normal training sentiment, the objection that a former trial at normal training was not a complete success, the prevailing sentiment among a certain class of pupils, who looked upon the teaching profession as a joke—an occupation to be avoided, or at least taken up only as a last resort. These and other obstacles impeded our progress but now things are coming our way.

Our plan of work, I suppose, does not differ materially from that of other towns, since we have followed as far as local conditions would permit the outline given in "Normal Training in High Schools."

The Holdrege course of study provides for physiology, civics and bookkeeping in the ninth grade; agriculture in the tenth; United States history in the second semester of the eleventh, and reviews throughout the year and professional training during the second semester of the twelfth grade. All these subjects are elective except reviews. All seniors are required to take reviews because we feel that the boy or girl who goes out from a high school weak in the common branches is poorly equipped for the duties of life. Besides he is a poor recommendation for the teachers and the school since the ordinary business man judges the school by what its graduates know of spelling, writing, geography and arithmetic.

The seniors are taking all the required subjects this year which makes their work extra difficult. They have agriculture and reviews this semester, and will take reviews, history and professional training the second half year.

Thus, briefly, I have sketched our plan, in general. I shall not go into detail and tell what we are doing in each branch but will let a few ideas on our work in agriculture give a line on what we are doing in other things.

First let me say that one-third of our class is boys. This fact adds interest, breadth, and the business element to our study.

We use as texts Bessey's Agriculture, Burkett's Agriculture for Beginners, and Goff and Mayne's book. In addition to these we have farmers' bulletins, reports of the department of agriculture for several

*Read before the Superintendents and Principals' Association, Lincoln, October 24, 1907.

years past, daily weather maps, books on various subjects, newspaper clippings, pamphlets put out by fine stock breeders and fanciers, indeed we utilize everything we can find that bears upon agriculture in any of its phases.

The subjects we have studied are not exactly the ones suggested in the outline but the ones we found the most interesting and in our opinion the most practical and helpful for the majority of the class who do not expect to be specialists. We take up soil, its formation, texture, constituents, improvement, the conservation of moisture; stockraising, judging of horses, cattle, hogs, and chickens by the use of score cards; the planning of convenient and appropriate houses for stock, also the planning and equipping of dwellings for farmers; butter making, stock feeding and breeding; crops suitable for Nebraska, crop pests and diseases, gardening, and fruit raising.

Our method is to study the texts and the other sources of information, then to make an experimental test, not necessarily in the laboratory but at home, at the neighboring dairy farm, or wherever the experiment is possible. We aim to make our work practical and to base it on common sense, not theoretical and technical.

Our purpose in this, as in all other work, is to make the pupil love the subject; to lead him to investigate things for himself and not to rush in blindly until he knows what he is doing, and to give him as Prof. Davisson says, "a passion for truth." We hardly expect in so short a time to equip our pupils as full-fledged farmers or to compare with the normal schools or university in fitting them as teachers. We do hope, however, to give them a few methods, some hints on the theory and practice of teaching, and some ideas as to how good teachers perform. We shall consider our time and effort well spent if we can firmly fix in their minds the importance of the work of a teacher, the great responsibility connected with it, the absolute necessity of thoughtful, conscientious, and thorough preparation, and the desire to go to the bottom of whatever is undertaken. Holdrege does not hesitate to vouch for the success of any pupil provided with this equipment.

***NORTH PLATTE IN LINE.**

Wilson Tout.

Yes, North Platte is in line and I am here today to find out whether we are with the leaders of the van or are tailenders. I am here to learn what is being done in the other high schools of the state in normal training, so that we may do the best work possible. Normal training in our school has many advantages—the people are willing for it, the board is eager for it, the teachers are enthusiastic over it and the students are pleased with it; so it only remains for those in control to inaugurate and carry out the course, being limited only by their knowledge of the

*Read before the Superintendents and Principals' Association, Lincoln, October 24, 1907.

matter and their natural endowments. Superintendent Goss and myself have studied the law and have read every bit of information supplied by the state department and have conferred and conferred, and the result is the normal course, as I shall present it. I shall mention only those subjects required by the law for this course.

American History is in the regular course and is carried during the first semester of the twelfth grade. The work is largely academic in character and the teacher is a University graduate, who has specialized in history. Source and reference work about share evenly with text-book.

Agriculture is a new subject in the North Platte high school and is carried during the first semester of the eleventh grade. Bailey's most excellent text is followed and this is supplemented by a great deal of source and reference work from a constantly growing library. A few standard reference works in agriculture were purchased. Then we have practically all of the yearbooks of the department of agriculture and the annual reports of the state agricultural society. Over 100 bulletins, circulars and pamphlets from the U. S. department of agriculture and the Nebraska experiment station have been catalogued and placed on the reference shelves. And this library has had to be collected during the last six weeks. The pupils of the class have been helpful in securing and arranging this library. We have done practically nothing in laboratory work, because we can secure as good results in another way. The substation of the Nebraska experiment station is located about three miles from our city. Here extensive experiments have been and are being carried on. The director and his assistants have very kindly placed their work and experiments at our disposal. Frequent visits have been made to the farm of nearly 1000 acres and in charge of one of the men of the farm, everything has been explained to the class. Note books are used and the notes written out and recorded. Experiments on a vast scale in soil temperature, soil moisture, dry farming, crop rotation, summer fallowing, etc., are explained on the ground and the actual work is seen. The feeding experiment will be studied, seed selection and testing will be observed and we feel that this is more practical than indoor laboratory work. In this we are more fortunate than many other places. The assistant who took us thru their soil laboratories and seed testing room and explained and demonstrated the work is now in Washington working out the records for the department of agriculture. He will later return to Lincoln and instruct in the winter term of the school of agriculture. The pupils are so interested that they want to continue the course thruout the year.

Pedagogy or Professional Training will be taken up during the second semester of the twelfth grade. Superintendent Goss has arranged for much practice and observation work, but the details have not yet been finally settled and so I do not feel at liberty to discuss them. The teacher in charge has had ten years experience in country, village and city

schools. But the hard work seems to center around the class in normal reviews. This class will carry nine weeks each in arithmetic, grammar, geography and reading. I will speak briefly of the one now in progress. a class of eighteen boys and girls from the eleventh and twelfth grades. We started this subject first because we had a supply of high school arithmetics on hand. These we attempted to use, but found that the class time was taken up with explanations of difficult problems and no time was remaining for the study of methods and principles. The class was fairly well prepared, indeed I may say that the pupils, while not above the average in intelligence, were well grounded in arithmetic. The high school books were soon discarded and we substituted a book used in the grades. We found that there was enough work in these books to give practice in solution and method at the same time. Problems are assigned after the principles have been discussed and the solutions are handed in at the next recitation. The papers are graded and returned. In grading papers we give credit for each example correctly solved but no credit is given unless all of the examples have been worked. The pupils are taught that the answer is the objective point. It must be correct or it is of no value. Oral analysis is given part of the time as well as written analysis and blackboard demonstration. The pupils are taught to give graphic representations of problems that require or allow of such demonstration. Class discussions on such subjects as "How to explain the Roman Notation," "What is a Fraction," etc., are held. I will quote from my note book the regular class work for one week.

Monday—Class handed in solutions of problems on square root and applications to the right angle triangle. Instructor gave a talk on "What to teach and what not to teach in arithmetic," the class taking notes.

Tuesday—Class hands in the notes on the talk of the day before. The notes have been amplified and extended and several pupils read them before the class. Discussion followed, illustrated by copies of old text books, compared with modern ones. Problems assigned in proportion after some preliminary explanations.

Wednesday—Demonstration, by first grade teacher, of primary number work. Class take notes. Class hands in solutions of problems assigned the day before.

Thursday—Round table discussion on primary arithmetic. Some of the extended notes are read and all are handed in. Preliminary explanations on graphic representations of examples in mensuration and problems are assigned.

Friday—Recitation period spent in study of cancellation and problems assigned. Solutions of problems assigned the day before are handed in.

In this way we are attempting to give a review of the subject matter and to get the pupil to a proper understanding of the relation of numbers while at the same time giving him an idea how to teach it.

It is intended to follow much the same plan in the other branches. All of the work has been arranged without very much previous knowledge of what the result will be and is open to modification upon further enlightenment.

***NORMAL TRAINING—READING.**

Fred M. Hunter, Ashland.

The normal class in reading at Ashland occupies the second nine weeks of the first semester. The class consists of both eleventh and twelfth grade students.

The course attempts to accomplish mainly these objects: (1) To impress upon prospective teachers as the main objects of teaching reading: (a) The cultivation of a taste for and ability to appreciate good literature, and (b) The cultivation in the pupil of the ability to express thought either original or acquired in a natural and effective way.

2. To give the prospective teacher: (a) a knowledge of the mechanics of readings, (b) a knowledge of the best methods of teaching reading, and (c) practice sufficient to ground them well in these methods. To accomplish these objects the academic study of Sherman and Reed's "Essentials" is used together with observation work in all grades from I to VIII.

The class begins with a study of the "Mechanics of Reading" from "The Essentials" with that text in the hands of the members of the class. During the study of this division of the text and of "Types and Effects," the class does observation work in grades VI, VII, VIII, averaging one period of observation, week per week.

With the beginning of the study of "Primary Reading" in the text, the class visits grades I, II and III. In these grades the Ward Rational Method of teaching reading is used and the members of the class are required to become thoroughly familiar with it.

The observation work averages about one period per week during the nine weeks. At the regular class recitation period before each visit the instructor gives an outline of four or five questions for the purpose of specifically directing the observation of the students in the most effective way. The students keep a note book of their observations and conclusions from them. During the "Conference and Study" period, from 3:30 to 4:00, which is uniform throughout the Ashland schools, the reading class meets with the teacher of the grade visited and with the superintendent and discuss the recitation observed with special reference to the points assigned for observation. The notes of the students, which until the conference period were incomplete and only roughly formulated, are completed and a full report of each member is made in the next succeeding recitation period. The note books are handed in three times during the course, corrected in red ink and returned for final correction by students.

*Prepared especially for this bulletin.

The practice work in teaching is facilitated by the board of education having made the members of the normal training class the regular supply teachers for the grades. In addition to this practice work each member of the class is required to conduct one recitation in the Ward method of teaching primary reading and one recitation of advanced reading with the other members of the normal reading class as pupils. In teaching primary reading the members of the class are required to assign and present the lesson in precisely the same manner required in actual work in the Ashland grades. The students present phonograms and sound, blend as one class recitation and a reading lesson from the first or second reader as a distinct recitation. In preparation for this practice work the pupils are given Gordon Plan blanks, such as are used in the Ashland grades, and are required to outline one week's work in advance for the grade in whose work the presentation is to be given.

At the beginning of the course a course of study with syllabuses for reading in all grades in the Ashland schools, is placed in the hands of each pupil. With each practice recitation and each visit the pupils are required to give an outline of the complete reading work for each grade visited, or the work of which is to be presented as practice work. By this means the pupils are made familiar with good texts, both basal and supplementary; they are taught systematic gradation of work, and the adaptation of types of literature to various grades. In this connection and with the text a glance is taken at the various American authors of repute with the best writings. Only a short time is given for this except in connection with the study of the syllabuses for the various grades, visitation, etc.

In a word the Ashland normal training class in reading is attempting to acquire a grasp of the importance and real aims in teaching reading, and to perfect the ability to accomplish these aims in the fullest way by all the actual observation and experience possible to high school students in a small town.

***NORMAL TRAINING—GRAMMAR.**

H. C. Filley, Albion.

This is as much a discussion of what we expect to do as of what we have already done, for our course in grammar will come the first half of the second semester. It has been our custom, however, to give a review in grammar, as well as of some of the other common branches, during the senior year.

We use Hoenshel's advanced grammar, the same text that we have in the grades and the one that those who teach are are most apt to meet in the rural schools of this county. Last year we began with the work for the eighth grade, but correlated with that the work which the author designates for the sixth and seventh grades. We had at hand several good grammars and disputed points were usually left to be looked up in these as a part of the next day's assignment.

*Prepared especially for this bulletin.

I found that the pupil's knowledge of Latin grammar was a decided advantage, especially in the analysis of sentences. They made distinctions readily which those pupils who have had only English grammar are apt to find difficult.

As a daily exercise for several weeks, the pupils were required to bring in lists of grammatical errors which had been made in the school room, and some other student was always required to correct each sentence read, and give the technical reason for his correction. They became quick to detect errors, and I believe that those who are now teaching will teach something of the art of English grammar as well as the science.

We spent a few days in writing business letters and ended the work with the state examination questions for the preceding month.

This year I am planning to have the normal training students visit the grammar classes of all the grade teachers, and to bring to our class discussions a little more of the pedagogical side of the subject.

Last year all members of the class who afterward took the state examination passed creditably, and this included some of the weakest as well as some of the strongest members. We now hope to add to knowledge of subject matter, a knowledge of how to present the subject.

***NORMAL TRAINING—GEOGRAPHY.**

Maude Emerson, Tecumseh.

In geography we follow the general outline as suggested in the Outline of Normal Training in the High School.

First, we begin with a general review of geography, as given in an advanced text, special attention being given to the United States. Then the continents are taken up and studied separately, followed by comparative work in all possible lines.

The geography of Nebraska follows, the pupils obtaining information from all available sources, using Dr. Condra's Geography of Nebraska as a reference book. Next follows the geography of the home region, the information to be obtained chiefly by observation.

The remaining time is spent, usually, in map drawing.

Recitations are sometimes conducted simply by topic, sometimes by general discussion.

The class seems to show more interest and get more from the recitation when general discussion is allowed. Special stress is laid on the method of teaching. We take up a subject as "oasis" or "desert" and the pupils tell how they would present the topic to a class having no knowledge of the subject.

***NORMAL TRAINING—AGRICULTURE.**

W. T. Stockdale, Wisner.

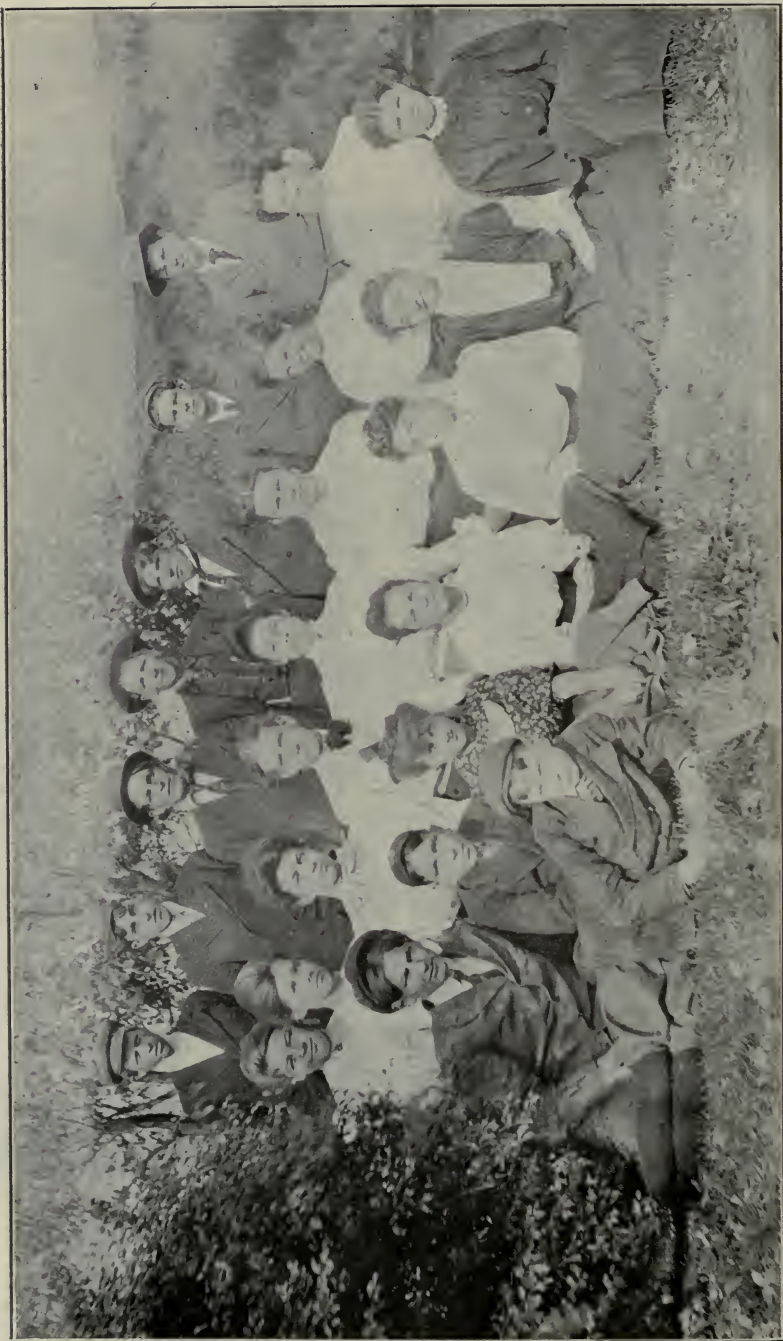
Briefly stated, the subject is handled in the Wisner high school as follows: The subject is elective for one semester in the eleventh and

*Prepared especially for this bulletin



NORMAL TRAINING CLASS, BROKEN BOW HIGH SCHOOL, 1907





NORMAL TRAINING CLASS, FAIRMONT HIGH SCHOOL, 1907

twelfth grades. We give it three single and two double periods per week. The time is divided about equally between class recitation and laboratory work, and use as our guide the outline in the normal training bulletin. We have two full sets of texts, Stevens, Burkett and Hill; and Bessey, Bruner, and Swezey, also copies of Goff & Mayne, Bailey, Kern, Severs, King's "Soil," Wing's "Milk and Its Products," and the Yearbooks from the U. S. agriculture department, together with a good collection of bulletins from both the U. S. agricultural experiment station of Nebraska and from the U. S. department of agriculture at Washington, D. C. Several farm papers are also used, besides books on examining and grading grains, judging stock, planning the grounds, gardening, etc.

The subject is taken up largely by topics, the different divisions being assigned to members of the class to be reported upon orally at a future recitation. The student thus reporting is really the instructor for his division of the subject and is so considered both by the class and by himself. To illustrate: We will suppose our subject to be "Butter Making." Student No. 1 reports on "The care of the cow," No. 2 on "Milk utensils and their care," No. 3 on "Handling the milk and separating the cream," No. 4 on "Ripening the cream," No. 5 on "Churning and care of the butter." Five to ten minutes, occasionally longer, time is required for each pupil to report. These reports are discussed, enlarged upon, doubtful points cleared up, and conclusions drawn.

In brief, our laboratory work consists of examining and scoring live stock and grains, testing milk and cream by the use of the Babcock tester and from the result estimate the relative value of different cows, taking into consideration the amount of milk given, cost of feed, etc.; microscopic examination of soils, water movement in soils, plant food in soils; examination of seeds as to composition, manner of growth, germination, vitality, testing, identifying, care of, distribution and selection.

Preparing window frames, hotbed, cold frame, plans for the home and school grounds. Each student has a garden and it is handled from three different standpoints—the commercial, the experimental, and the aesthetic.

Plant propagation, pruning and training, identifying trees and shrubs. Preparation and application of insecticides and fungicides.

***NORMAL TRAINING—AMERICAN HISTORY.**

Maria P. Upson, Beatrice.

In the Beatrice high school the plan used for the preparation of the lessons in American history is to require an outline of the topics to be brought to the class at the recitation period. The purpose of this is to train the pupil to get clear ideas from the printed page. Having the outlines placed upon the board, and having them discussed in the class assist pupils who do not grasp the central thought easily and who do not see the relative importance of statements.

*Prepared especially for this bulletin.

Some readings with notes upon such material as Caldwell's Source Book, and Hart's Source Book are required.

Encyclopedia readings upon events and persons not treated of sufficiently in the text book are made.

Note books are handed in for inspection.

A written paper from an outline is required each semester. "The Growth of Union among the Colonies," is the subject of the paper for the first semester of this year.

***NORMAL TRAINING—UNITED STATES HISTORY.**

Ina B. Robinson, Blair.

The pupils in the normal training class in the Blair high school who will finish the course this year are taking the regular twelfth grade United States history. This gives a splendid opportunity for a complete review of the subject, especially since the plan here is to study up to the constitutional period, then spend some time on civil government, and after that the remainder of the year on the last period of the history.

In addition to this regular course, during the entire year two periods a week of twenty to twenty-five minutes each will be given for the special work of training teachers of history. The pupils in the regular class are dismissed ten minutes before the bell rings and the training class remains about fifteen minutes after the time for closing the recitation. This is the last period in the afternoon, so is easily arranged.

The first periods of the year were given to some talks on the importance of the subject, and to arousing an interest in the work of the teacher.

The state superintendent's report is taken as the basis of the lessons and it is the intention to drill on all the points given in that outline. The pupils are more interested in the concrete than the abstract so one of the first series of lessons was given, as follows: The class was divided into eight sections, one representing each grade. A list of questions was given, as, In the grade you represent find out exactly how much history is taught; what text-book, if any, is used; what kind of supplementary reading is required; what reference books are available for the pupils, etc. From the reports an outline in full was made and each pupil copied this into a note book for future reference. This work occupied several periods.

It is the aim to have each grade visited by the different pupils as many times as practicable during the year. A list of questions will be given and each member of the training class will be required to make a complete report on them, for example: How much work was covered in the period; what was the method of conducting the recitation; had an outline been given by the teacher or made by the pupil; how was the assignment made for the following day; were there any special devices used for arousing interest, etc.? It is the intention to have the class

visit rural schools also and make similar reports. These are to be carefully considered and the results of the investigations kept in note-books.

In this way as far as possible a series of lessons will be given on the different points suggested in the state superintendent's outline.

There are many lessons that must be somewhat abstract but the practical work keeps the class enthusiastic.

*NORMAL TRAINING—PEDAGOGY.

A. L. Caviness, Fairbury.

Here in brief is what we do in Fairbury.

I. Study carefully and critically the text of pedagogy.

II. Visit schools—in city under the direction of the city superintendent; in the country under the direction of the county superintendent.

III. Practice as supply teachers in grades where the regular teacher is absent.

THE TEXT-BOOK—In the study of the text we use methods familiar in other subjects, but constant advantage is taken of the interest in the new point of view—consideration of the school from the standpoint of teaching instead of being taught. Comparison of these viewpoints we find most fascinating to the student-teacher and it renders freedom of discussion easy and natural. We allow use of pupil's experience under former teachers for illustration so long as it deals with the method of instruction and not the personality of the teacher under discussion. We encourage questions dealing with the HOW, the WHY, and the RESULT. We require reference reading in a number of works on pedagogy.

VISITATION. Great care must be exercised to have members of the training class visit schools where good teachers are doing strong work. On her regular trips to the country the county superintendent takes two or three of the class with her, leaving them perhaps at one school while she visits another that may need attention. In the city not more than one room is visited in a given day by a part of the class and usually to observe the work of a particular recitation.

Each one visiting makes notes and makes out a report to the training class discussion. These reports deal with (1) the general condition of the grounds and buildings; (2) the pupils and their interest in the day's work; and (3) the teacher's ability to govern, her methods of instruction, and her general characteristics. Great emphasis is placed on the teacher as the center of interest and the chief factor of the school work.

In reports to the class and in the general discussion the name of the teacher visited or criticised is not mentioned, the purpose being to discuss the work of teaching and not the individual teacher. Each member of the class is encouraged to make comparisons between the actual work reported and the principles developed in the study of the text.

We give a few typical questions to be kept in mind while visiting: Government—(1) Is good attention secured and held? (2) Is the teacher's

*Prepared especially for this bulletin.

manner decided and enthusiastic? (3) Are the pupils interested? Are those at seats quiet and diligent? Teaching—(1) Are important points fully developed? (2) Are questions prompt, clear and logical? (3) Are questions asked before naming the pupil? (4) Are pupils' answers repeated? Characteristics—(1) Is the teacher too talkative? (2) Is she natural and pleasant in speech? (3) Is she systematic? (4) Is proper attention paid to the atmosphere and temperature?

TEACHING—In the training class there are some who seem "cut out" for primary teaching, some for intermediate work, and occasionally one who is capable of handling even seventh and eighth grade rooms. The right member of the class must be assigned to a given room if we are to avoid disastrous results to all concerned. A live instructor will soon acquire a fairly intimate knowledge of the make-up of his class and can generally avoid mistakes in assignment. But if one is made, the instructor must stay with the case and see that the experimenter comes out as well as possible. A breakdown cannot be permitted, even for one session, nor can a change be made with safety.

We plan to give each member of the training class from three to five days' actual experience during the semester and they must make at least one report on their own practice teaching. Those who show special aptitude for the work frequently do a good deal of supply teaching in case of sickness or unavoidable absence of the regular teacher. For such work they receive the regular pay for supply teaching after they have served the required five days.

In general we find it best to have the visiting and reporting distributed over the whole semester, averaging one of two reports each week.

***NORMAL TRAINING—ARITHMETIC.**

W. T. Davis, Beaver City.

Our work in arithmetic this year will cover nine weeks in the second semester of the twelfth grade; later, however, we expect to devote an entire semester to the subject.

The subject matter is expected to be as follows: A pretty close review of factors and divisors. At least two weeks should be given to the subject of fractions—the rock upon which too many young teachers come to grief. Most of the matter usually classified under the term of compound numbers should be passed over without notice. This is particularly true of the special rules for papering, carpeting, etc. The idea here should be to pass over everything that requires only the application of arbitrary rule. Concerning this the law uses a phrase worth keeping in mind, "underlying principle."

Longitude and time, however, merits brief review. Parts of the subject upon which algebra and geometry throw especially strong light should receive special attention as they now become the application of a principle already learned. Among these may be mentioned the circle and the right triangle theorem.

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Percentage and its applications will demand a large part of the total time and here is the place where we will be most likely to find the student either "rusty" or with only vague and hazy ideas of the subject. Profit and loss and taxes should have a careful review. The best methods of simple interest should be carefully drilled upon. The student should now be ready to grasp the subject of stocks and bonds. Even exchange may be considered if time allows. The subject might well be closed with a list of problems involving the most essential principles of arithmetic.

The pedagogy of the subject is by far the most difficult phase demanding solution by the teacher. Most students will teach as they were taught so every lesson should be a model so far as possible. Correct use of terms and accuracy are most essential in this work. Every demonstration of a problem by a student should throw him in the true attitude of teacher and the explanation should reach the maximum of clearness and simplicity.

The teachers in the grades will be expected to give model lessons to be observed by the normal training students. As far as possible these will be "development lessons." The student will be required to give an outline of the lesson observed covering both matter and method. The student will also be required to teach as well as to observe. Lesson plans will be prepared, submitted and approved before the class is taught.

In this way at least an idea of what teaching really means will be given the prospective teacher. It should also cure the very prevalent mistake of even high school students that there is a sort of divinity that hedges the teacher from error and makes him able to teach more by inspiration than by preparation.

This outline contemplates a nine weeks' course but the work of a semester might well be done on the same lines and with only slight modifications.

***NORMAL TRAINING—READING.**

Anna Lockwood Peterson, Omaha.

The normal course in the Omaha high school extends through the second term of the year, from January to the middle of June. In reading, five hours of instruction a week are given, four devoted to the general subject or reading and the fifth to primary methods—the last in charge of Miss Clara Cooper, the able supervisor of primary instruction in the Omaha public schools.

The object of the general course is two-fold: First, to assist the students in teaching reading and, second, to help them to improve their own reading. We recognize three evident reasons for the poor results which too often follow the efforts of a conscientious teacher: First, lack of appreciation of good literature on the part of the teacher of reading. Second, the complexity of vocal expression. Third, the intangibility of

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vocal expression. Acknowledging the first requisite of a successful teacher of reading to be appreciation of the meaning and beauty of good literature, we have required the normal training course to be preceded by three and a half years of thorough training in literature and composition.

We hope to impress upon our students the necessity of bringing to this study not only a love for the best in the world of books, but a keen desire to make their pupils love the best and eager to share it with others.

The complexities of vocal expression and the reasons for its intangibility as compared with arithmetic or geography, for example, are defined and explained by the instructor during the first four to six weeks in lectures on the criteria of judgment, i. e., Time, pitch, quality and force. These lectures are illustrated by members of the class after study of the assigned text-book, Sherman and Reed's *Essentials of Teaching Reading*. These lectures are followed by careful drill in time as affected by grouping and collateral thoughts. The pause is dealt with as an expressive element, not a meaningless silence dependent upon arbitrary marks of punctuation. An effort is made to fix firmly the habit of grouping thought-units, to develop power of discrimination between central, subordinate and successive ideas in a sentence or a paragraph. By careful study of these phases of expression the student learns how to get the right atmosphere of a selection and can then read with proper emphasis, rhythm and emotion.

Shorter extracts of prose or verse are at first assigned for class preparation. Later in the term entire poems, etc., are studied as types of literary expression and, as often as possible, committed to memory.

The second step comes in the study of method. Having an understanding of the principles of reading the student is shown how to apply that knowledge in teaching younger pupils. All possible stress is laid on thought-getting, and the least possible stress on word-getting.

Pupils are made to feel that the essential thing—to quote Prof. Clark—is to “get the thought, hold the thought and give the thought.” At intervals “lesson talks” are given by the instructor (later by members of the class), showing how to present each step of the work to little children without the use of technical terms or mechanical directions as to inflections, pause, etc. Poor reading is due to lack of mental grasp. The child, then, can not read until he has the thought-picture from the printed page. He must hold that thought until it **HOLDS HIM**. He must imagine, must feel, before he can express. But how shall he imagine, feel and express if his teacher does not? Written and oral tests of progress are made from week to week and the examination at the term's end is partly written and partly oral. Students are made to realize, if possible, that no merely mechanical knowledge can take the place of personal power; that the successful teacher is she who reads well herself and, by so doing, rouses the enthusiasm and kindles the imagination of her class.

A word of our difficulties—not peculiar, I fancy, to Omaha. First, we are not always satisfied with teaching material we receive. Our best students who expect to teach take the full high school course and go afterward to a good normal school or a university for wider training. Yet last year in a class of forty we had many earnest, hard-working students, ready at all times to do their best before the class and eager to improve. Indeed, at the end of the term several said that they “had never worked so hard.” This makes us hopeful of removing in time, the second obstacle—that wide-spread impression that “anybody can teach reading.”

*NORMAL TRAINING—PEDAGOGY.

Jas. E. Delzell, Lexington.

We are giving two periods a week during the first semester. The length of the periods is forty minutes. The work so far has been in the form of lectures, with pupils asking questions and discussing some phase of the work each time. We are following “Hinsdale’s Art of Study” as basis for our talks and discussions. We find the persual very helpful to the pupils in their every-day school work. The lives of the leading educators that are mentioned in the Art of Study are studied to some extent, thus giving a brief course in the history of education as we go along.

We are emphasizing the practical side of school work. The pupils are asked to observe the work of each of their teachers and to watch for the strong points in their plan of work, presentation of the subject, interest manifested by the pupils in the different recitations and how the pupils devote themselves to the subjects that they like and how they neglect work not to their taste. This has been of value to the thirty-six that are in the pedagogy class. Care must be taken that the criticisms made by pupils are not of the wrong kind, that which will tear down the work of a teacher. Since we organized the normal class I find that when I leave the seniors for a time, on my return I find one of them reciting. This at least is one advantage that has come to our class.

Pupils that are not strong in their work will be given a chance to know how to study in the right way by the discussion of the “Art of Study,” and will plan their work so as to get all that they are capable of getting in the time allotted to each subject.

We are also laying the foundation for pupils to get a desire to understand the “Why” of the many ways used to keep pupils interested in the school work and how to keep them in school. This is first hinted at in the introduction of the “Course of Study.” This arose from the question, “Why is not the alphabetical method the best way to teach Reading?” And a brief discussion of the different methods of teaching beginners how to read, and the different books published, led to a short talk on the course of study as used in Nebraska.

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Pedagogy is too often of the theoretical kind and beyond the average pupil's ability to grasp the hidden meanings of words used. Even the authors of pedagogy books do not agree. Hence the great need of keeping close to the understanding of the learners. Better err on the side of teaching a little of pedagogy too well than to teach the many terms and theories and leave the pupil in doubt and add nothing to his ability to take charge of a school at the end of the normal course in the high school.

How to study, how to teach, how to govern, and how to establish peace in a community are some of the many qualifications that every teacher needs. We trust that every normal class in the schools of the state will in some way imbibe those few characteristics of the helpful teacher.

WHAT THE TEACHING PROFESSION OFFERS YOUNG MEN

Every young man when he reaches the years of understanding and responsibility is faced with these questions: "What can I be? What can I do? Where is my place in life?" He cannot escape them if he would, he should not dodge them if he could. The all-important question for each young man to settle is to find out what nature intended him to do; then study and fit himself for his chosen calling. The great cause of so many failures on the part of young men is that they have missed their calling. Sidney Smith says that if you choose to represent the various callings in life by holes in a table, some triangular, some oblong, some circular, some square, you will generally find that the oblong person is trying to get into the triangular hole, while the square person is doing his best to squeeze into the round hole. Dean Swift states the question this way:

"Brutes find out where their talents lie;
A bear will not attempt to fly,
A foundered horse will oft debate
Before he tries a five-barred gate.
A dog by instinct turns aside
Who sees the ditch too deep and wide.
But man we find the only creature
Who, led by folly, combats nature;
Who, when she loudly cries—*forbear!*
With obstinacy fixes there;
And where his genius least inclines,
Absurdly bends his whole designs."

But whatever field the young man enters today, whether it be farming, stock raising, banking, law, theology, medicine, or teaching, the demand is for efficiency. To the young man who has found his calling and who will fit himself for it, there never were better opportunities for success than today.



NORMAL TRAINING CLASS, FULLERTON HIGH SCHOOL, 1907





NORMAL TRAINING CLASS, COLUMBUS HIGH SCHOOL, 1907

Let us call the attention of young men to what the teaching profession opens to them. We remember one of the ablest judges of this state used to say that if a young man contemplates entering the profession of law the best training for him is to be found in from three to five years' experience in the business of school teaching. Among the great lawyers of this country who began their career as school teachers we may mention Daniel Webster and Thomas B. Reed. The most brilliant politician in America since the days of Henry Clay was James G. Blaine. For several years he was a teacher in the Western Military Institute at Blue Lick Springs, Kentucky. He also taught several years in the Pennsylvania Institute for the Blind at Philadelphia. Among the presidents who have dignified the profession of teaching are John Adams, Grover Cleveland, James A. Garfield, and William McKinley. In the field of American literature we recall that Longfellow, Holmes and Lowell were not above the business of teaching school.

Among the distinguished citizens of Nebraska who have taught school we may mention United States Senator E. J. Burkett, Congressman E. H. Hinshaw of the fourth congressional district, Congressman George W. Norris of the fifth congressional district, Judge C. B. Letton of the supreme court, Hon. H. H. Wilson of the law faculty in the University of Nebraska, Land Commissioner H. M. Eaton, Deputy Attorney General W. B. Rose, former chairman of the Republican State Central Committee. Hundreds of men prominent in Nebraska today were once school teachers.

About thirty-five years ago a bare footed boy with his parents crossed the Missouri river near Omaha. In a covered wagon they moved on to the frontier in Nebraska, where the young man herded sheep and cattle barefooted. He attended the district school. He studied in Doane College. He served as superintendent at Wilber, Beatrice, and Omaha; respectively. At present he is superintendent of the Milwaukee public schools at a salary of \$6,000 per year.

A farmer boy in Iowa began his public career as a country school teacher. He is now superintendent of the city schools of Chicago at a salary of \$10,000 per year. At the last meeting of the National Educational Association he was elected president.

An Irish boy, college bred, is now superintendent of the city schools of New York at a salary of \$10,000 per year.

Here are salaries better than those of United States Senators.

When Daniel Webster decided to take up the profession of law he was told by his friends that the profession was overcrowded. His reply was, "There is plenty of room at the top." Young men, if you contemplate entering the profession of teaching, there may be those who will tell you that all the good places are taken and that the profession is overcrowded. Our reply is, "There is plenty of room at the top."

THE NERVOUS AND PEEVISH TEACHER.

Worry kills many teachers. A reasonable amount of work, intelligently planned, is the elixir of life to the true teacher. No one needs perfect health more than the teacher. Plenty of sleep, sufficient exercise, good food properly taken are the price to be paid for good health. The teacher who keeps late hours, whether at study or in society, is nervous and peevish in the schoolroom. Dr. Henry Houck, for nearly forty years deputy state superintendent of Pennsylvania, gives us a vivid picture of this kind of teacher. One day a little fellow let his desk down and it s-q-u-e-a-k-e-d a little. The teacher s-c-r-e-a-m-e-d out in her agony, "Johnny you were never fit to be in decent company. Come up here and sit by me." So Johnny deserted decent company and went up and sat down by his teacher. Let us have pity for such a teacher and let us have sympathy for her pupils.

THE PATIENT AND INSPIRING TEACHER.

We need teachers who have patience with the timid boy, the dull boy, the bad boy; who have patience with the frivolous girl, the stubborn girl, the indifferent girl; teachers who can inspire such pupils with the proper ideals and make of them good men and women. A story is told of a boy soldier in the trenches of El Caney, who at the first sound of the enemy's guns and the singing of the bullets, fell flat on his face in terror so abject that neither the taunts nor the kicks from his comrades could arouse him to his duty. He was seen by General Chaffee, the officer in command, who ordered him to get up and fight. "I can't," he whimpered. "Shot?" asked the general. "No, I'm scared," replied the boy. "A fine soldier," said the general. Then, seeing what a mere boy he was, he took him kindly by the shoulder and said, "There isn't so much danger as you think. Get up and take your gun and I'll stand by you." The boy got up, white with fear and shaking in every limb, and fired his first shot high in the air. "Keep cool and try again," said General Chaffee encouragingly. Within three minutes, says the narrative, "that kid was fighting like a veteran." This story illustrates our complex human nature. A kind word, a helping hand, "I'll stand by you," from the teacher is as great an inspiration to her pupils as such kindness was on the part of the general to the soldier.

CARE OF SCHOOL PROPERTY.

It is the duty of every teacher to instill in her pupils a desire to take proper care of all school property. Under our present free text-book law this subject is one of great importance. Experience proves that where proper care is exercised by the school board and teachers this law is popular and satisfactory; but it becomes a detriment and a nuisance whenever pupils are permitted to carelessly soil, mark, deface, or destroy the books. Teachers should appeal to the pride of their pupils in a proper use of the books; insist on habits of neatness and cleanliness; make a regular inspection of books, at least once a month;—no other agency is

more effective than a regular book inspection. Teachers should also hold pupils responsible for preserving and returning books in good order by the proper use of the permanent text-book record.

It is a crime under the Criminal Code of Nebraska for any person to wilfully and maliciously injure or deface any school property. Section 111 of the Criminal Code reads:

"If any person shall wilfully and maliciously injure or deface any church edifice, school house, dwelling house, or other building, its fixtures, books or appurtenances, or shall commit any nuisance therein or shall purposely and maliciously commit any trespass upon the enclosed grounds attached thereto, or any fixtures placed thereon, or any enclosure or sidewalk about the same, such person shall be fined in any sum not exceeding one hundred dollars.

It is nothing short of criminal negligence the way some schools permit pupils to maliciously injure or deface school property. A prudent watchfulness in the care of school property is a better means of teaching morality than long lectures on the subject and then to permit pupils to violate the law in a reckless destruction of public property.

HIGHER EDUCATION.

Let every rural teacher in Nebraska inspire her pupils with a desire for a high school education. Let every high school teacher urge our young people on to college, university and normal school. Let every young man and every young woman know that the demand on them is for efficiency.

The questions are often asked, "Does education help one to success?" and "What amount of school training helps most?" The editors of *Who's Who in America* have rendered the country a service by inducing more than 10,000 of the men now living in the United States, who are most notable in all departments of usefulness and reputable endeavor, to report their education. These men have won enviable distinction, and the facts they give will help answer the questions, "Does education help one to success? and "What amount of school training helps most? It thus appears:

1. That from 1870 the uneducated boy in the United States failed entirely to become so notable in any department of usefulness and reputable endeavor as to attract the attention of the *Who's Who* editors, and that only twenty-four self-taught men succeeded.

2. That a boy with only a common school education had, in round numbers, one chance in 9,000.

3. That a high school training increased this chance nearly twenty-two times.

4. That college education added gave the young man about ten times the chance of a high school boy and two hundred times the chance of a boy whose training stopped with the common school.

In a Sod Schoolhouse.

In October, 1903, in company with Superintendent McLaughlin, we

spent a week visiting schools in Boyd county. One day we came upon a sod schoolhouse. Neither the teacher nor the pupils knew we were coming. When we entered the school room there was no staring at us, no laughing at us, no uncomplimentary remarks. Every pupil kept at his work. Classes were called and dismissed in good order. There were fourteen pupils present. But the school house presented a tumbled-down appearance. We could look out through the roof and see the sun and the sky. We could see out of the door without opening it. Some of the window lights were out. There were holes in the floor which was laid almost on the earth—just two by two-inch scantlings under it.

We heard a spelling class recite. It was composed of five little girls and one boy,—Dick, a red-haired, freckled-faced, shabbily dressed little fellow, who took his place at the head of the class. As he came to the recitation he pushed one foot along over the rough floor. At first we thought he was lame. But a glance told the cause and we looked the other way. He was wearing an old shoe that would hardly hang on his foot. The upper was almost entirely gone. Had he lifted his foot the old shoe sole would have flapped, flapped, flapped, as he walked. There was a hole in the floor where Dick stood. As a policy of double economy and yet with an art that would tempt the painter's brush, he let the foot on which he wore the paralyzed old shoe drop carelessly into the hole in the floor, first, to hide the old shoe, and, second, to cover the hole in the floor. But Dick held his place at the head of the class. The proud sparkle in his eyes, the bright gleam on his face, his manly, heroic bearing as he saw the teacher make a record of his victory and heard her say, "Dick wins the head mark today," told us that Dick had caught the soul-inspiring strains of Robert Burns, who was himself a son of toil:

Through losses and crosses
Be lessons right severe,
There's wit there, you'll get there,
You'll find no ither where.
Never mind the crowd, lad,
Or fancy life won't tell;
The work's a work for a' that
To him that doeth it well;
Fancy the world a hill, lad,
Look where the millions stop;
You'll find the crowd at the base, lad,
There's plenty of room at the top.

McKinley's Struggle for an Education.

All good costs. Strength is born of struggle.
"Each aspiration of our human earth
Becomes an act through keenest pangs of birth;
Each force, to bless, must cease to be a dream,
And conquers life through agony supreme."

A mother's toil, a sister's sacrifice, a father's denial, and his own best efforts—all this—was the price paid for McKinley's education.

The following story taken from the "Illustrious Life of William McKinley," by Murat Halstead, tells us something of the trials and privations through which he made his way into public life.

"Young McKinley grew into manhood in the village of Poland, Ohio, a town which possessed a seminary for boys and girls of the type of the New England academy. To Poland seminary came ambitious young men and young women from the neighboring farms, eager for the book-learning of the schools and believing that its possession would open broad highways to success in life. Some engaged rooms and board at the rate of \$2 a week, and others reduced this very modest cost of living by taking rooms alone and eating the victuals sent in to them weekly by their parents. None of these bright young people felt that they were poor. They were all accustomed to the close economies of the farm life of that period, and were not in the least ashamed of them. The richest man in Poland at that time was not worth ten thousand dollars. A man with five thousand dollars' worth of property and no debts was thought to be well off. Mrs. McKinley helped out the narrow income of the family by taking boarders and herself did the cooking with the help of the girls.

"Young McKinley was an ardent student. It was his mother's ambition as well as his own that he should go through college and then study law, but whether this aim could be accomplished was always rather doubtful. The father was frugal, industrious and self-denying, but he had a large family to provide for and his earnings were small. William did what he could help out the family income by one sort of work or another in vacation times. At one time it was almost decided that the plan for his education must be abandoned, but his elder sister, Annie, came to the rescue with the money she had saved as a school teacher."

In Old Drumtochty.

While Domsie Jamieson was the schoolmaster in the good old country place of Drumtochty they always had a student at the university. "Seven ministers, four doctors, one professor and three civil service men had been sent out by the auld schule in Domsie's time, besides many that 'had given themselves to mercantile pursuits.'"

The last legislature gave us a free high school law. Practically every high school in Nebraska is free and open to the boys and girls who complete the work of the rural schools. The high school is indeed becoming the people's college. The boys and girls who come from the rural school to the high school are, as a rule, the cream of the country schools, and they not only maintain but raise the standards of the high school. There are many doubtless who do not attend the high school because they find it hard to pay their board. But where there is a will there is a way. Poverty may be inconvenient and sometimes intolerable but he who is born poor is often fortunate. Tell the story of Garfield's struggles and privations for a col-

lege education in every country school and in every high school of Nebraska, for it will be a source of inspiration to every one who hears it. It is more interesting than a novel, because it is true. It is the story of unconquerable determination and sublime self-reliance, of lofty purpose and inflexible resolve, of incorruptible integrity and moral courage of the highest type, of noble effort and magnificent achievement, of prolonged struggle, crowned by the most brilliant triumphs. He emerged from an obscurity as profound, and reached an elevation as lofty as is seldom the lot of man. His hardships and disadvantages were the wings wherewith he soared. See him as a driver of a muleteam on the tow-path of the Ohio canal! As a struggling janitor and industrious student at Hiram's academy! a graduate of renown at Williams college! See him just after his nomination for the presidency on his return to Washington, where a reception is tendered him. He stands in the balcony of the Riggs House beneath a blaze of electric light. He seems to have reached the apex of human ambition. He is a member of the national house of representatives, United States senator-elect from Ohio and the candidate of his party for the presidency. Such an accumulation of honors has never before fallen on an American citizen!

But after all is it not a lack of interest rather than a want of money keeps so many of our young men and young women out of the college and university? Would that our teachers could get a hold on their patrons like unto that Domsie Jamieson had upon the people of old Drumtochty. It would solve both the interest and money side of this question of higher education.

"There was just a single ambition in those humble homes, to have one of its members at college, and if Domsie approved a lad, then his brothers and sisters would give their wages, and the family would live on skimmilk and oat cake, to let him have his chance."

Hasten the day when there will be such a spirit of self-sacrifice in thousands of homes in this great commonwealth, in both city and country, now negligent of their duty to their children in matters of education. For every child that comes into this world has a right to an education.

The reward of those teachers who strive for this ideal "is better than the merchandise of silver, and the gain thereof than fine gold." It is the gratitude of patrons and the eulogy of pupils. When Domsie Jamieson received that wonderful letter from his old pupil, Geordie Hoo, it read: "Dear Mr. Jamieson: The class honor lists are just out, and you will be pleased to know that I have got the medal both in the humanity and Greek." There was something in this letter about telling his mother and his gratitude to his old teacher, "but Domsie heard no more. He tried to speak and could not, for a rain of tears was on his hard old face."

When they carried the good news to Geordie's mother, and met her at "the end of the house beside the brier bush," Domsie tried to read the letter, but "between the shaking of his hands and his voice he could not." "It's nae use," he cried, "he's first in the humanity oot o' a hundred and

seventy lads, first o' them a', and he's first in the Greek, too; the like o' this is hardly known, and it hasna been seen in Drumtochty since there was a schule. That's the word he's sent, and he bade me tell his mother without delay, and I am here as fast as my old feet could carry me."

"Margaret was silent for the space of five seconds. She took the Dominie's hand, and said to him 'Under God this was your doing, Maister Jamieson, and for your reward ye'll get naither silver nor gold, but ye hae a mither's gratitude.'"

Eloquent tribute Thomas Jefferson paid his old Scotch professor, William Small: "He was the man who fixed the destinies of my life."

Garfield was attracted to Williams College by the fame of Mark Hopkins, who was then at the serene meridian of his great powers as a philosophic teacher. But in the fulness of time Garfield's day of greatness came. Did he forget to pronounce a fitting eulogy on his old teacher? One of the first public acts after his inauguration was to receive in the east room of the executive mansion at Washington the venerable educator and a delegation of Williams alumni, to whose address of congratulation he made a feeling response. "For a quarter of a century," said President Garfield, "Doctor Hopkins has seemed to me a man apart from other men, standing on an intellectual and moral mountain peak, embodying in himself much of the majesty of earth, and reflecting in his noble life something of the sunlight and glory of heaven."

Matchless, therefore, is the opportunity of the true teacher. Matchless also is the responsibility.

SELF-CULTURE.

Self-culture is the teacher's golden opportunity. Self-culture is possible. Self-culture is moral. Self-culture is religious. Self-culture is intellectual. Self-culture is social. Self-culture is practical. "It proposes as one of its chief ends to fit us for action, to make us efficient in whatever we undertake, to train us to firmness of purpose and to fruitfulness of resource in common life, and especially in emergencies, in times of difficulty, danger, and trial."

As to the means of promoting self-culture we quote from William Ellery Channing in his unrivaled address on this subject:

"The great means of self-culture, that which includes all the rest, is to fasten on this culture as our Great End, to determine deliberately and solemnly that we will make the most and the best of the powers which God has given us. Without this resolute purpose the best means are worth little, and with it the poorest become mighty. You may see thousands, with every opportunity of improvement which wealth can gather, with teachers, libraries, and apparatus, bringing nothing to pass and others with few helps doing wonders; and simply because the latter are in earnest and the former are not. One in earnest finds means or creates them. A vigorous purpose makes much out of little, breathes power with weak instruments, disarms difficulties, and even turns them into assistances."

Nothing can take the place of books in the self-culture of teachers. It is not the number of books you read but the quality of the books and your manner of reading them that count in self-culture. "Reading without purpose is sauntering, not exercise. More is got from one book on which the thought settles for a definite end in knowledge, than from libraries skimmed over by a wandering eye. A cottage flower gives honey to the bee,—a king's garden none to the butterfly."

The memorizing of thought-gems has long been recognized by educators as one of the most efficient means of culture. This is profitable for both teachers and pupils. The teacher whose mind is apt in responding with choice extracts from our best literature is far superior to the teacher who is bankrupt in this great field of knowledge. Let every teacher who wishes to attain a mastery of the English language, who would learn to think naturally, clearly, logically, and to express herself intelligibly and earnestly to her pupils store her mind with the best thoughts of the best authors. The teacher who will commit to memory one brief, choice selection each day for a year, making the thought and the sentiment of the author her own, will find herself so improved in her command of English and so accomplished in her conversational powers as to be an inspiration to her pupils and to her friends. The quotations herein given are suggested for the teacher's study. Great care should be exercised in the selection of memory gems for pupils, making them on a plane with the pupil's understanding.

Extracts.

One of the illusions is that the present hour is not the critical, decisive hour. Write it on your heart that every day is the best day in the year.—Emerson.

Thank heaven for breath,—yes for mere breath—when it is made up of a breeze like this! It comes with a real kiss upon our cheeks; it would linger fondly around us if it might; but since it must be gone, it embraces us with its whole kindly heart, and passes onward to embrace likewise the next thing that it meets. A blessing is flowing around and scattered far and wide over the earth, to be gathered up by all who choose.—Hawthorne.

It is excellent discipline for an author to feel that he must say all that he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at the present more than anything else.—Ruskin.

The triumphs of the warrior are bounded by the narrow theatre of his own age; but those of a Scott or a Shakespeare will be renewed with greater and greater lustre in ages yet unborn, when the victorious chieftain shall be forgotten, or live only in the song of the minstrel and the page of the chronicler.—Prescott.

Surely happiness is reflective, like the light of heaven; and every





NORMAL TRAINING CLASS, O'NEILL HIGH SCHOOL, 1907

countenance bright with smiles, and glowing with innocent enjoyment, is a mirror transmitting to others the rays of a supreme and ever-shining benevolence.—Irving.

He's true to God who's true to man; wherever wrong is done,
To the humblest and the weakest 'neath the all-beholding sun,
That wrong is also done to us; and they are slaves most base
Whose love of right is for themselves, and not for all the race.

—Lowell.

No one is so accursed by fate,
No one so utterly desolate,
But some heart, though unknown,
Responds unto his own,
Responds as if, with unseen wings,
An angel touched the quivering strings,
And whispered in his song,
Where hast thou staid so long?

—Longfellow.

One-story intellects, two-story intellects, three-story intellects with skylights. All fact-collectors who have no aim beyond their facts, are one-story men. Two-story men compare, reason, generalize, using the labors of the fact collectors, as well as their own. Three-story men idealize, imagine, predict; their best illumination comes from above, through the skylight.—Holmes.

The riches of a commonwealth
Are free, strong minds and hearts of health;
And more to her than gold or grain,
The cunning hand and cultured brain.

Whittier.

In men whom men condemn as ill
I find so much of goodness still,
In men whom men pronounce divine
I find so much of sin and blot,
I hesitate to draw a line
Between the two, where God has not.

Joaquin Miller.

So live that when thy summons comes to join
The innumerable caravan that moves
To that mysterious realm where each shall take
His chamber in the silent halls of death,—
Thou go, not like the quarry-slave at night,
Scourged to his dungeon, but sustained and soothed
By an unfaltering trust, approach thy grave
Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams.

—Bryant.

O the anguish of that thought that we can never atone to our dead

for the stunted affection we gave them, for the light answers we returned to their complaints or their pleadings, for the little reverence we showed to that sacred human soul that lived so close to us, and was the divinest thing God has given us to know.—Eliot.

Oh, wad some power the giftie gie us

To see oursel's as ithers see us!

It wad frae monie a blunder free us

And foolish notion.

What airs in dress and gait wad lea' us,

And e'en devotion.

—Burns.

A cheerful temper, joined with innocence, will make beauty attractive, knowledge delightful, and wit good-natured. It will lighten sickness, poverty, and affliction, convert ignorance into an amiable simplicity, and render deformity itself agreeable.—Addison.

This above all—to thine ownself be true,

And it must follow, as the night the day,

Thou canst not then be false to any man.

—Shakespeare.

Oh let us fill our hearts up with the glory of the day,
And banish ev'ry doubt and care and sorrow fur away..

whatever be our station, providence fer guide,

Sich fine circumstances ort to make us satisfied;

Fer the world is full of roses, and the roses full of dew,

And the dew is full of heavenly love that drips fer me and you.

—Riley.

An ideal is above price. It means the difference between success and failure—the difference between a noble life and a disgraceful career, and it sometimes means the difference between life and death. Have you noticed the increasing number of suicides? I speak not of those sad cases in which the reason dethroned leaves the hand no guide, but rather of those cases, increasing in number, where the person who takes his life finds nothing worth living for. When I read of one of these cases I ask myself whether it is not caused by a false ideal of life. If one measures life by what others do for him he is apt to be disappointed, for people are not likely to do as much for him as he expects. One of the most difficult things in life is to maintain the parity between one's opinion of his own merits and the opinion that others have of him. If, I repeat, a man measures life by what others do for him, he is apt to be disappointed, but if he measures life by what he does for others, there is no time for despair. If he measures life by its accumulations, these usually fall short of his expectations, but if he measures life by the contribution which he makes to the sum of human happiness, his only disappointment is in not finding time to do all that his heart prompts him to do. Whether he spends his time trying to absorb from the world, only to have the burden of life grow daily heavier, or spends his time in an effort to accom-

plish something of real value to the race, depends upon his ideal. The ideal must be far enough above us to keep us looking up toward it all the time, and it must be far enough in advance of us to keep us struggling toward it to the end of life. It is a very poor ideal that one ever fully realizes, and it is a great misfortune for one to overtake his ideal, for when he does his progress stops.—Bryan.

Self-Culture in Conversation.

The successful teacher must be a gifted conversationalist. She must make it a constant rule always to talk as well as she can and she will infinitely improve by practice. It is worth while for every one of us to pattern after Emerson in our conversation, and not be so careless as we often are. "Emerson was sparing of words, but used them with great precision and nicety. If he had been followed about by a shorthand writing Boswell, every sentence he ever uttered might have been preserved. To hear him talk was like watching one crossing a brook on stepping stones. His noun had to wait for its verb or its adjective until he was ready; then his speech would come down upon the word he wanted, and not Worcester or Webster could better it from all the wealth of their huge vocabularies."

The chief requisite of this art cannot be better stated than by its great master, Samuel Johnson; "There must, in the first place, be knowledge; there must be materials;—in the second place, there must be a command of words;—in the third place, there must be imagination, to place things in such views as they are not commonly seen in;—and in the fourth place, there must be the presence of mind, and a resolution that is not to be overcome by failures; this last is an essential requisite; for want of it many people do not excel in conversation."

Self-Culture in Story Telling.

The successful teacher must be a good story teller, not for the sake of provoking merriment and laughter, but for the purpose of driving home some truth or clinching some point with the felicitous brevity of an Aesop fable. She must have her story well learned and know how to tell it. The teacher who is a master of this art can clothe the dry facts of history with romance and make any subject interesting. Suppose the class is studying the annexation of Texas. The teacher who can tell briefly the thrilling story of Sam Houston will arouse greater interest among her pupils than by forcing them to copy—by proxy oftentimes—never to read again—many volumes of "original sources." Let the teacher give the class an opportunity to tell what they have learned on this question and especially let them tell something of General Houston's part in this drama. Then, if the teacher can add something like the following, it will inspire a spirit of investigation and original research that will bring down from the shelves every dusty volume in the library: "General Houston had a personal history as romantic as that of an ancient crusader. He was a native of Virginia, a representative in Congress from Tennessee, and governor of that state before he was thirty-five. He was the intimate and trusted friend

of Jackson. Having resigned his governorship on account of domestic trouble, he fled from civilized life, joined the Indians of the western plains, roved with them for years, adopted their habits, and was made chief of a tribe. Returning to civilization, he emigrated to Texas and led the revolt against Mexico, fought battles and was victorious, organized a new republic, and was made its president. Then he returned to his native land, bearing in his hand the gift of a great domain. Once more under the Union flag he sat in the capitol as a United States senator from Texas. But the deep mystery of the man's life cannot be explained without the following anecdote: Soon after his inauguration as governor of Tennessee he had married an accomplished young lady, to whom he one day intimated, in jest, that she apparently cared more for a former lover than she did for him. 'You are correct,' said she earnestly, 'I love Mr. Nickerson's little finger better than I do your whole body.' Words ensued, and the next day Sam Houston resigned his governorship. Then followed the thrilling experiences just narrated."

A HIGH AND HONORABLE PROFESSION.

Above all, be loyal to your county superintendent, to your high school principal, to your city superintendent, to your board of education, to your fellow teachers, to your pupils, and to your profession. Appreciate the grandeur of your work as pictured by President Roosevelt to the National Educational Association, July 7, 1905, at Ocean Grove, New Jersey.

"It is not too much to say that the characteristic work of the Republic is that done by the teachers; by the teachers, for whatever our shortcomings as a nation may be—and we have certain shortcomings—we have at least firmly grasped the fact that we cannot do our part in the difficult and all-important work of self-government, that we cannot rule and govern ourselves, unless we approach the task with developed minds, and with what counts for more than developed minds, with trained characters.

"You teachers—and it is a mere truism to say this—you teachers make the whole world your debtor, and of you it can be said, as it can be said of no other profession save the profession of the ministers of the gospel themselves; if you teachers did not do your work well, this republic would not outlast the span of a generation.

"Moreover, as an incident to your avowed work, you render some well-nigh unbelievable services to the country. For instance, you render to this republic the prime, the vital service of amalgamating into one homogeneous body the children of those who are born here and of those who come here from so many different lands abroad. You furnish a common training and common ideals for the children of all the mixed peoples who are here being fused into one nationality. It is in no small degree due to you, and to your efforts, that we of this great American republic form one people instead of a group of jarring peoples. The children, wherever they have been born, wherever their parents have been born, who are educated in our schools side by side with one another, will inevitably grow

up having that sense of mutual sympathy and mutual respect and understanding which is absolutely indispensable for working out the problems that we as citizens have before us."

The most potent factor of all in the advancement of our public schools is the teacher. The true teacher is the best and noblest citizen of the commonwealth. She must possess a broad and accurate scholarship. Her every thought and plan must be developed in the light of professional learning. By an unerring judgment she must select the knowledge most useful to the children. She must be skilled in the science and art of school government. An intense patriotic sentiment, must be among her cardinal virtues, an unfaltering faith in humanity one of her marked characteristics. A heart power that is profound and inspiring must be one of her noblest attributes. Though a conversationalist by nature, she will make it a constant rule to talk always as well as she can. Her personality is pleasing, her demeanor captivating. She is an adept in that rarest of social traits—the flexibility of adaptation. She is fortunate in her physical strength. She is obedient to the laws of health and she cultivates the same habit among her pupils. By example as well as by precept she teaches the godliness of cleanliness. In dress she is tasteful without extravagance. In all her work she teaches much of a few things rather than a little of many things. She knows that it is better to inspire the heart with a noble sentiment than to teach the mind a truth of science. She does both. An irreproachable character is her supreme charm, and an untiring industry her great genius. She is no amateur adventurer nor reckless pretender, but one fitted by nature and training for her signal calling. The opportunity laid upon her is matchless; matchless also is her responsibility. She should not be hired through the favoritism of the spoils politician nor the nepotism of some selfish relative, but she should hold her place under the merit system on her own tenure of office. As a matter of simple justice she should receive a salary commensurate with her qualifications and her success. Her final reward will be better than the merchandise of silver, and the gain thereof than fine gold.

The true teacher knows that knowledge does not comprise all that is contained in the broad term of education. The feelings are to be disciplined, the passions restrained, true and worthy motives inspired; a profound religious sentiment instilled and pure morality inculcated under all circumstances. She will teach her pupils that integrity and industry are the best possession that can ever come to young men and young women in this life. She will teach her boys that "every man who falls below his highest, harms not only himself, but lowers the standard of his country; that every man who values wealth more than honesty, rank more than character, amusement rather than improvement, ease more than reform, to that extent falls short of the perfect citizen." She will teach her girls that "every woman who abuses the freedom of American womanhood by unfaithfulness, lends the powerful excitement of her personality to the slavery of the past and to the failure of the republic; that every

woman who leaves the duty and decorum of her native land and prostitutes her American home to the scandals, the vices, the social immoralities and moral impurities of foreign cities, not only compasses her own shame, but mars the fair fame and name of all Columbia's daughters. " She will teach her boys and girls that "it is only by surpassing the world in all chivalry and dignity, in all modesty and purity, in the integrity of our business, in the virtue of our homes, in the rectitude of our intelligence, in the aspiration of our intellectual life under the absolute control of moral righteousness, that we can meet the responsibilities of American citizenship."

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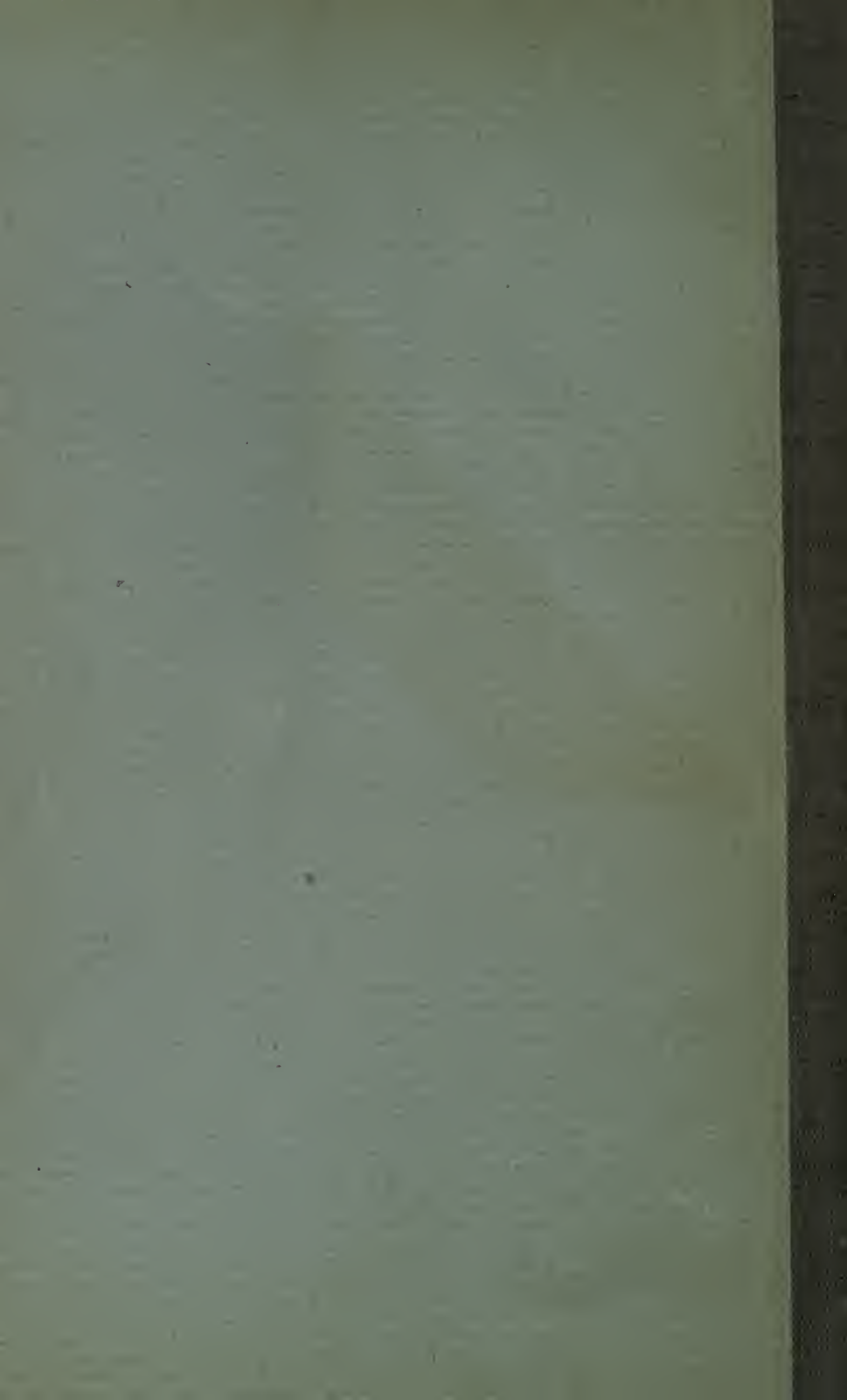
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